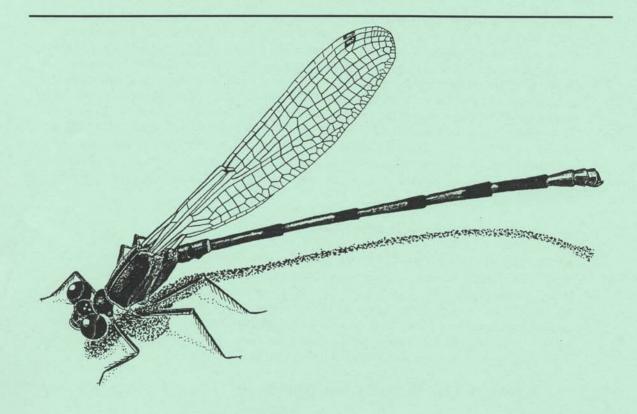
ARGIA

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ARGIA, the quarterly news journal of the DSA, is devoted to non-technical papers and news items relating to nearly every aspect of the study of Odonata and the people who are interested in them. The editor especially welcomes reports of studies in progress, news of forthcoming meetings, commentaries on species, habitat conservation, noteworthy occurrences, personal news items, accounts of meetings and collecting trips, and reviews of technical and non-technical publications. Articles for publication in ARGIA should preferably be submitted and hard copy and (if over 500 words) also on floppy disk (3.5" or 5.25"). The editor prefers MS DOS based files, preferably written in WORD, WORD for WINDOWS, WordPerfect, or WordStar. Macintosh WORD disks can be handled. All files should be submitted unformatted and without paragraph indents. Each submission should be accompanied by a text (=ASCII) file. Other languages should be submitted only as text (=ASCII) files. Line drawings are acceptable as illustrations.

T. Donnelly (address above) is the interim editor of ARGIA.

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Cover: Argia oenea, by the well-known Salvadoranean artist Victor Hellebuyck

IN THIS ISSUE

In spite of a very cold and wet summer in much of the U.S., Odonata study and collecting were highly successful. For several of us, the highlight of the summer was the second tropical odonata gathering at Las Tuxtlas Biological Station in Veracruz, Mexico. The hosts, Enrique González and Rodolfo Novelo, not only provided some fabulous collecting but also gave us a look into what is probably the fastest growth of odonate study in the tropical world. Two articles about the Mexican trip lead off this issue. A Somatochlora brevicincta expedition to Quebec with Tim Vogt was a close second for me.

Reports are included from several states not recently discussed in ARGIA. Steve Krotzer tells us of some of the odonates in Alabama - a state many of have driven through but too few of us have lingered in. Bob Glotzhober tells of a few of the efforts of a small group of Ohio odonatists. They have their own newsletter, and their activities cover far more than the brief snippet included here.

Some collecting notes from the Northwest are especially appropriate because of our next summer gathering - in the Cascades of Oregon. Too few of us have penetrated west of the Rockies, and many members of the DSA are due for a pleasant experience next summer. We urge everybody to plan to attend this meeting.

The finding of *Tramea calverti* was a triumph of communication. Following the original find, several workers were notified by telephone - resulting in additional finds. This is one of the most interesting odonatological events in the Northeast for several years.

As usual, we include some notes about equipment and techniques. This issue's highlight is Ken Soltesz's account of using one of those giant squirt guns to nail gomphids on rocks. Can you picture a glowering Ken inviting a gomphid to "make my day"?

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LOS CABALLEROS Y LOS CABALLITOS II

Jerrell Daigle

The long-awaited sequel to the best-selling "Los Caballeros y Los Caballitos" has arrived! Ken Tennessen and myself could hardly wait to return to Mexico since our last trip in 1990. This year, we were joined by Bill Mauffray (Gainesville, Florida) and Sid Dunkle ("Plain Ole Texas") on our way to the Second Neotropical Odonatogical Meeting hosted by Enrique Gonzalez and Rodolfo Novelo at Los Tuxtlas. Dr. Minter J. Westfall was unable to join us due to minor surgery. Ken, Bill, and I dropped by the hospital to visit before we drove to Orlando to catch our flight to Dallas on July 11. The good doctor is now back in the laboratory and he is doing fine, thank you.

In Dallas, we were joined by Sid Dunkle, and "Live from New York" Ailsa and Tom "Nick" Donnelly. Phoebe and George Harp would arrive the next night from Arkansas. At the Mexico City Airport, we were warmly greeted by Enrique Gonzalez, his wife, and his two little boys. Early the next morning, Bill, Ken, Sid, and I loaded a borrowed truck with all of our luggage, nets, and equipment including Bill's kitchen sink. We headed east for Veracruz where we would pick up George "Indiana Jones" Smolka.

We found a beautiful, rocky stream cascading over a small dam, south of Xalapa at Consolota and just north of Coatepec on Hwy. 7. Despite cloudy weather, we collected such prizes as the green *Erpetogomphus boa*, the purple *Argia "gesticula"*, the giant black *A. percellulata*, and a blue *Argia* cf. "lacrimans" among the many *Brechmorhogas* and *Hetaerinas*.

Later, we drove down the road to the scenic Puente Texolo and hiked in the deep Rio Texolo mountain canyon. We collected several of the green Erpetogomphus viperinus, Brechmorhogas, Argia "gesticula", the black Paraphlebia zoe, and an unknown species of Palaemnema (possibly paulicaxa?). That night we stayed at the nice, inexpensive Hotel Laguna nearby but the owner

insisted on cash for the rooms, just like all of the other managers of cheap hotels on this trip. The long drive had tired us out, so we turned in early once we gulped down dinner (arroz y pollo, frijoles, and refrescas) and processed our specimens. It was a very good start to an exciting, exotic collecting vacation.

The next day, we stopped at the Hotel Balneario swimming hole area south of Puente Nacional on Hwy. 140. We collected at a small, forested tropical stream just teeming with dragonflies. I think the odonate diversity here was the highest of any place visited on this trip. Ken discovered the furtive, bluish Agriogomphus tumens lurking in the deep streamside shade. Bill had a good time swinging wildly at the many Phyllogomphoides duodentatus cruising over the largest pool. I stalked the slender protoneurids such as the red Neoneura amelia, N. paya (black form), the pale green Protoneura cupida, and black Psaironeura remissa. Sid caught everything else, including katydids, praying mantids, etc. We all bagged several of the reclusive Palaemnema desiderata that were uncharacteristically flying way out over the sunny stream.

Then, it was high noon and with great difficulty, I rounded up the rest of the rambling herd and we headed for Veracruz. On the way over, we crossed several nice-looking rocky streams that we vowed to explore in the future. After picking up George at the Pasa del Toro gas station we headed for our destination, Los Tuxtlas, so Sid gunned the engine and we literally zoomed to Catemaco. On our left, we glimpsed sandy beaches and the azure waters of the Gulf of Mexico. Once we got through Catemaco, things slowed to a walrus walk. There were numerous huge potholes and curving bends in the 30 kilometer dirt road leading up the San Martín volcano to the Los Tuxtlas biological research station.

Suddenly, Sid slammed on the brakes and we lurched to a halt! We were surrounded by a dusk flight of aeshnids. Scrambling and spilling from the jeep, we fumbled for our nets and feverishly swung at millions of "bombers". The fun only lasted about five minutes but we did catch a green and red Coryphaeschna "apeora" and a few Triacanthagyna ditzleri.

We collected at the field station from July 14

to July 18. Locally, the common species were blue Argia eliptica, A. ulmeca, red Heteragrion albifrons, orange H. alienum, blue and black Palaemnema paulitaba, and P. paulitoyaca. In the jungle clearings, the gigantic "helicopters", Megaloprepus coerulatus and Pseudostigma aberrans would float maddeningly by you. Dawn and dusk revealed Anax amazili, Coryphaeschna "apeora", C. secreta, and Triacanthagyna ditzleri cruising up and down the main road.

Ken literally struck gold right behind the station dormitory --- gold in the form of the rarest Mexican damselfly, the brightly yellow tipped *Heteragrion azulum*. Previously, the species was known only from the single holotype male collected nearby. Soon, the gold rush was on! Everybody was bumping into one another behind the buildings, panning for gold!

After the dust had cleared, I believe we only found about 2 males and 3 females after several days of searching the whole jungle -- all were taken from just behind the buildings. Sid had written the original description of the male and he plans to describe the females.

At the Arroyo and Laguna Escondida, we collected such goodies as the marine blue Cora marina, the petite green Erpetogomphus ophibolus, the rare Epigomphus donnellyi, Aphylla protracta, Agriogomphus tumens, Phyllogomphoides pugnifer, and the slender blood-red Protoneura aurantiaca. I got the only Argia popoluca male caught on this trip among the numerous Argia gaumeri and A. frequentula. It was perched on a huge elephant ear frond overhanging a shady trickle which also had Agriogomphus tumens and Hetaerina sempronia.

One day, we packed a big lunch and headed for the nearby Rio Coxcoapan. The wide but deep river was loaded with Neoneura amelia hovering over the debris-filled pools and log jams. One clear, fast-flowing tributary contained several species of gomphids, such as Phyllocycla breviphylla, the smaller P. volsella, and Phyllogomphoides pugnifer. Abundant Progomphus clendoni were perching on gravel bars and streamside vegetation or cruising up and down runnels. I worked up quite a sweat swinging left and right at those Progomphus! Afterwards, the soda pop and potato salad never tasted better as we all swapped stories under the cool shade of the

giant rain forest trees.

That night, we drove over the bumpy road north to Montepio where Richard Vogt, station herpetologist, hosted a Veracruz-style banquet in our honor at his beach house on the Gulf of Mexico. It was food, song, and dance all night long! Thirsty? Whirling his machete, Richard sliced off the tops of cold, green coconuts and served us refreshing "Coco frio!" The main course was baked robalo (snook) covered with saucy river shrimp, mushrooms and plump gulf shrimp along with salads and various side dishes.

The next morning we drove to a crater lake called Laguna Zacatal near Tapalapan. Despite cloudy weather, we collected such goodies as Archilestes latialatus, Argia variabilis, and Aphylla angustifolia.

On our last full collecting day, we ran into more Aphylla angustifolia at the goldfish pond bordering the Rio Palma at La Palma, just down the road from the station. East of Sontecomapan, we stopped at the Agua Caliente stream and collected Phyllogomphoides pugnifer, Pseudoleon superbus, and Macrothemis inacuta.

After each yummy evening Mexican dinner, Enrique and Rodolfo conducted workshops and scientific presentations. Participants included Alejandro Cordoba Aguilar, Ailsa and Nick Donnelly, Sid Dunkle, Angel Flores, Enrique Gonzalez, Phoebe and George Harp, Bill Mauffray, Rodolfo Novelo, Norma Palacios, Alonso Ramirez, George Smolka, Ken Tennessen, and myself. We exchanged reprints and held discussions covering a wide range of odonatological subjects. Enrique distributed an updated checklist of the described Odonata from Would you believe 337 species and counting? I think we can add about 6-7 new species that were collected on this trip alone! Our sincere thanks to Enrique and Rodolfo for presiding over the meetings.

For the remainder of the trip, we would be split into three expeditions. Rodolfo lead one group back to Xalapa (Jalapa). Enrique took the Donnellys and Harps to Hidalgo to look for a new species of *Amphipteryx*. After returning George Smolka to Veracruz, we headed for Mexico City. We stopped and collected briefly at the wide Rio Tizapa (10 km. north of La Tinaja). The large,

blue Argia pipila were fairly common and a few green Erpetogomphus "bothrops" perched with them on the rocks admidst the gravely ripples.

After returning Norma Palacios to Mexico City, the "Rat Patrol" [better known throughout Mexico as "Los Locos"; ed.] headed for the scrub desert south of Cuernavaca in a very small rental car. You should have seen Bill, Ken, Sid, and me all crammed together with our nets and luggage. Fortunately, it was only a couple hours drive over the scenic Ajusco Mountains to Cuernavaca.

The countryside was mostly green mesquite, cactus, and thorn scrub. The inch-long stiletto thorns were longer than the small leaves and easily punctured fingers and egos. Can you say O-U-C-H, boys and girls? Good! I knew you could! Nobody ran into the scrub chasing dragonflies! We moved slowly like a sloth to avoid ripping our nets and bodies to shreds.

We crossed the wide but recently muddled Rio Amacuzac south of Tehuixtla and stayed at the Balnearios Las Palmas swimming hole campground.

South of the cabin, I found a beautiful, tiny stream flowing through the mesquite scrub into the Rio Amacuzac. Almost immediately, I caught my breath and I swung at a strange, little blue Argia that I did not recognize. I suspected that it might be one of Rosser Garrison's many new species. That afternoon, we all collected a large series of the new Argia species, including mated pairs. Later, I sent Rosser some specimens for his opinion. He wrote back that it is a new species related to Argia fumipennis and A. vivida. Companion odonata species were Argia oenea (purple form), A. tezpi, Protoneura cara, Erpetogomphus elaps, E. eutainia, and the big, bold Phyllogomphoides pacificus.

The next day, we collected on the Rio Sabinos at the Balneario Con Campestre at Temixo south of Cuernavaca and near Xochitepec. This was near Enrique's favorite spot to catch *Phyllogomphoides danieli* and *P. luisi*. Suffice to say, we were not disappointed at the swarms of *Phyllogomphoides*. We collected both species plus *Progomphus belyshevi*, *P. clendoni*, *Erpetogomphus elaps*, and many *Argias* such as *Argia "azula"*, *A. extranea*, *A. oenea*, *A. tarascana*, and a giant black *A. ulmeca*-like critter.

Later that night, we stayed at the cheapo Hotel Oasis right on the busy highway. The home-cooked meals were fantastic and the folks were very friendly. However, the nighttime truck traffic sounded like Jumbo 747's barooming right in your living room!

The following morning, we drove past the Zochicolco ruins and collected at several mesquite-scrub streams on the way to Tasco, the center of Mexico's silver mining culture. The first spot became my personal favorite on this trip. It was a beautiful gravel stream flowing through the little town of Pueblo Cocoyotla on Hwy. 421. We were lucky enough to catch such rarities as Argia harknessi. Erpetogomphus sipedon, Progomphus belyshevi flying among the many Hetaerina americana, Erpetogomphus elaps, **Phyllogomphoides** luisi, and Progomphus clendoni. Argia The harknessi Erpetogomphus sipedon were in the tall trees along the banks. Every once in while, a couple would drop down and perch on the rocks or gravel bars alongside the other species mentioned above.

On several smaller streams between Chavarria and the Rio Amacuzac, we collected the same species (except Argia harknessi) and two different species, Archilestes grandis and Argia pallens. At our last station, the Río Amacuzac was still muddy at Huajintlan. We hiked up a large, clear tributary and eventually found many Phyllogomphoides danieli and a few Erpetogomphus "bothrops" zipping over the strong currents. I crawled underneath some heavy shrubbery growing beneath the cliff side trees and I was utterly surprised to find Palaemnema domina resting on fallen leaves and branches. It was damp between the sprawling roots of the giant trees, so this must where the larvae survive and not in the rushing river torrents below.

All in all, it was a terrific trip and we vowed to spend more time at our favorite sites during our next expedition to Mexico. Hopefully, it will be before the next symposium.

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THE OLD FOLKS VISIT MEXICO - ANOTHER PERSPECTIVE

Nick Donnelly

The Mexican trip consisted of two groups who comingled at the UNAM biological Station at Las Tuxtlas. Jerrell has written of the adventures of the younger group ("Los Locos"); these words are reserved for an account of the same trip seen through older, more tired eyes.

The groups diverged at Mexico City, with Los Locos leaving in a cloud of dust early in the morning after our evening arrival. The old folks ("Los Ancianos") diverted themselves in Mexico City the next day and left early Monday morning for the biological station. As one approaches the biological station by road the last major curve on the road is called the "Curva del Diablo". Enrique carefully explains to each new visitor that the name comes from the local belief that a devil appears at this curve - especially when it is dusky. One night we approached the curve, and Enrique repeated the story for someone in the vehicle. As we rounded the curve in the dusk - the devil himself suddenly loomed in front of the carryall. It was Jerrell, still chasing evening aeshnids.

This curve revealed later in the week an interesting "secret". On the first day, Sid took a Coryphaeschna secreta there, and Jerrell took one later. I was interested in this species, having taken it is Guatemala once in 1964, so I went back there and found several more. Even more interesting, I discovered that there was a rather strange fern swamp just behind a barbed wire fence, and that the secreta were patrolling this odd habitat. There were only small bodies of water at the bases of the ferns, which the secreta seemed to regard as their This is nearly the same fern (the territory. common Nephrolepis) that hangs in baskets in half the houses in the U.S. These specimens, however, were higher than my head.

At the biological station our days were more or less organized in theme collecting within a few kilometers of the station. The first day we walked to Laguna Escondida where Rodolfo Novelo demonstrated his considerable prowess in collecting larvae of *Heteragrion* and *Palaemnema* in a large, very attractive stream. Why has it taken so many years for someone to really find and study these interesting larvae?

On the second day Enrique took the group to a small pond in an open pasture near the sea shore. The theme of this trip was observing libellulid behavior. The group around the pond was a mixture of devoted behaviorists noting with care and precision the number of times Orthemis ferruginea tapped the water when ovipositing; and avid collectors, their knuckles turning white on their net handles as they awaited the word that the slaughter could begin. When that word to "Swing!" was eventually given by our leader, all of the more desirable libellulids (such as a Micrathyria hageni, which had posed willingly for my camera for about 30 minutes) disappeared in high dudgeon.

Early the next morning (in the dark, yet), Enrique led a group of us eager behaviorists down to a forest stream where we were to spend the next few hours immersed in icy water studying the mysterious mating rituals of *Palaemnema desiderata*, which had been marked the previous day. Their behavior consisted entirely of perching on stems while a dozen students of insect behavior took copious notes. (George Smolka: "Number 5, wing clapping." George Harp: "Number 6, short flight"). The secret, folks, is that they don't do nothing. I was left wondering where little *Palaemnema* come from.

In one place near the lab were a series of small concrete tanks built for some sort of fish research. A green kingfisher evidently regarded these tanks as a kingfisher feeder and only left when I approached. Libellula herculea, Archilestes latialatus, and Micrathyria dictynna also established territories here. One of the strangest sights of the entire trip was of an irritated Archilestes chasing a Micrathyria two fast laps around these tanks!

When the time came to leave the lab our groups diverged. Los Ancianos (George and Phoebe Harp, and Nick and Ailsa Donnelly, led by Enrique and Angel Flores) went first to Coatepec where we spent a wonderful day collecting in Rio Texolo. Here we took several *Erpetogomphus viperinus* (the real one), *Paraphlebia zoe*, an odd *Palaemnema* (undescribed?), several *Argia*, including the undescribed species "aitza" and "gesticula", and an apparently undescribed *Brechmorhoga*.

Leaving that lush paradise, we next headed for the plateau. Enrique wanted to record the first odonates for the small state of Tlaxcala, so we stopped at a rather unpromising shallow lake in near-desert country. Enrique announced to us that we would stop only for "diez minutos no más" which, for those of you unfamiliar with the Spanish idiom, means "we'll be here about two hours." The lake had abundant Aeshna multicolor, which were being seized on the wing by gluttonous red-winged blackbirds. There were also many Libellula nodisticta, Sympetrum corruptum and illotum, and a few Erythemis collocata.

We spent too much time at the lake, with the result that we drove well into the night to reach our hotel at Tlanchinol - in the mountains of northeastern Hidalgo. As we drove through the totally dark and lonely night around hairpin turns, Ailsa reminded us that her guidebook advised travelers not to drive in mountain roads in Hidalgo at night - the country was full of robbers who would stop cars in these lonely, barren hills. I guess they thought our ancient carry-all was slim pickings.

Our destination was a lovely, precipitous stream tumbling down a mountain side in cloud forest. Here Enrique had previously taken a single male of an undescribed species of Amphipteryx. We were encouraged to take more, and find the larvae if we could. We took nearly forty adults, and Angel even managed to find a female ovipositing. Alas- we found no larvae! We also found several of the largest Hetaerina infecta that I have ever seen and the large Hetaerina capitalis that Calvert had named tolteca. While the others scrambled up tiny streams or forded the raging river down below, Ailsa was rewarded with a fine sighting of a jaguarundi, which appeared at the edge of the brush along the road, looked around, and then decided it was OK to trot across the road.

The next day we then went on to another mountain road leading to a manganese mine in some rather unpromising country. We stopped at a small stream (moral: never pass up a small stream!) where we took, in addition to the usual un-nameable Argias, some Archilestes regalis and several specimens of what had been previously considered to be Heteragrion tricellulare (a species of Guatemala and Chiapas). This was not the true tricellulare, but yet another undescribed

species.

Our last day was supposed to be odonate-free because we had to get back to Mexico City before the traffic got bad (give me a break). We decided none the less to stop at Laguna Atezca, whose name Rodolfo Novelo had used for a new subspecies of Ischnura posita. We found many of these, along with some Enallagma exsulans (it's exciting down here), Enacantha caribbea, several species of red Libellulas, another undescribed Micrathyria, a single male of an undescribed Lestes (will it ever end?), and, as usual, many species of Argia. However, most of these we could name, and most were called rhoadsi.

We made it back to the City just in time to be caught in the world's largest traffic jam - but that's "life in the tropics", as one of my friends used to say. Besides the many good insects that we found, and the beautiful places that we saw, I think that the major product of this trip was the determination to COME BACK. Thanks, Enrique, and Rodolfo, for a great trip and for sharing some of the riches of Mexican odonatology with us. ¡Olé!

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INNOCENTS IN THE NORTH WOODS - A SOMATOCHLORA ADVENTURE

Nick Donnelly

I don't know how the summer was where you live, but around here it was awful - cold, rainy, and absolutely miserable for dragonflies. Ailsa suggested that we might find some better weather 1000 km further north, and we remembered Tim Vogt's previous adventures with Somatochlora brevicincta. So we called Tim and needed nearly thirty seconds to persuade him to meet us in northern Quebec.

Readers of ARGIA may have missed the rather brief note on the finding of this insect that Tim sent in for the last issue. The story is an interesting one. Tim, who is the DSA's most avid Somatochlora specialist, decided a few years back to locate Frere Adrien Robert's type locality for this species. In 1990, accompanied by two Quebec collaborators (Rob Alvo and Michelle Savard), he went right to the spot, finding it on the first try!

His problem was to identify the spot, which is not easy in these trackless wastes, and then reach it, which is very difficult. He found adults and larvae, several of which he reared. He returned in 1991 alone, and in 1992 with Dan Spivey (a summer intern with the Illinois Nature Conservancy) to meet us for a third trip.

To get to the spot, we drove as far north in Quebec as paved roads go (Chibougamou). Then we drove another hour north on a dirt road and got permission to collect from the local Cree officials. (We were granted access by decree. Say it slowly.) Then we launched our canoe at the Cree village (Baie du Poste) and paddled an hour along the shore of Quebec's largest lake. We went up an estuary until a fallen log blocked our way, dragged our canoe ashore, and walked (hah!) through thick spruce forest. We emerged from the forest facing a gigantic bog, which is mainly string bog. We went to a small depression ("flark") in the bog and then waited, sinking further and further into the muck, for Somatochlora to appear - which they finally did by mid afternoon. During spells of boredom we walked (wrong word, but I don't know the correct one) around the strings and flarks (depressions) netting other odonates, which include Aeshna subarctica and sitchensis, Sympetrum danae and internum, Leucorrhinia hudsonica and patricia, and Coenagrion interrogatum and resolutum.

Finally Somatochlora appeared - but which species? S. septentrionalis and brevicincta are dominant, but walshi, albicincta, and cingulata are also present in smaller numbers. We couldn't really tell which is which, but brevicincta seems to fly lower and slower than septentrionalis. The best way to identify one is to call Tim's attention to it and see if he jumps up and down screaming, "IT'S THE BIG B!" At the end of our day we had actually netted a few of each of the two species and felt that the day was well spent indeed! Tim is currently doing a detailed ecological study (mainly botany) of this bog in an effort to characterize the habitat of this - and other odonate species.

We don't really know if *brevicincta* species is rare or not. Robert recorded single specimens from two other localities, one of which can't be presently identified. The original locality is a bog perched on Proterozoic dolomite, which might give the groundwater a somewhat "hard" character. All of this has to be sorted out at some future date.

On our way up to Chibougamou, we stopped at a few places along the road and took Aeshna juncea and Somatochlora minor and walshi in small numbers. On the way home we had a brief sunny interval as we were passing through La Verendrye preserve north of Ottawa, so we found a dirt road and explored. One stream was hodging with Ophiogomphus colubrinus. I spotted a male on a rock and pounced on it with my net. Another male landed on my net even before I was able to get my hand down to pin the one I had just caught! Then, with me incommoded with a bug under my net, two more Ophiogomphus appeared and tangled, falling into the stream. Ailsa alertly grabbed them both. As I was taking them from her net (with the original specimen still clutched in my fingers), two more males tangled in the air, and she netted them too. Five colubrinus in 30 seconds ain't bad.

At this stream we also found some Stylurus scudderi flying, and netted several. I found my first females of this species, and, for those of you who haven't seen this one alive, it is a rare treat. It is by far the fattest gomphid in North America. Imagine a black and yellow cigarette flying up the stream at high speed! These also had a strange habit which I have not seen in any other species. One female flew through a culvert (eight meters long, one meter in diameter) beneath the road and seemed to take a longish time emerging at the other end. The next time I saw a female do this, I went down into the stream and looked through the culvert. The female scudderi was ovipositing in the culvert! Come to think of it, this is not a bad idea - what a good place to avoid being pestered by randy males when you are laying your eggs.

Come to think of it also, Quebec is a good place to go for bugs when the rain is falling at home!

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ODONATE HUNTING IN THE HEART OF DIXIE

Steve Krotzer 2105-A Montreat Parkway, Birmingham, AL 35216, USA

Although Mary Jane and I have only been collecting odonates for a couple of years now, we have found the experience absolutely fascinating --

and addictive!! We have also found our home state, Alabama, to be a great place to collect. The combination of a varied physiography (five physiographic regions occur in the state) and a moist, subtemperate climate has resulted in the development of a variety of aquatic habitats, ranging from coastal marshes to high gradient rocky streams. This variety in habitat is reflected by a high diversity of many aquatic groups, including freshwater fishes (our academic "specialty"), mussels, and of course, odonates!

Several interesting collecting spots are located within approximately an hour's drive Birmingham, our home and the largest city in Alabama. One is at the lab where I work, and comprises three separate ponds. Two of these are stocked with fish and have sparse submerged or emergent vegetation associated with them. The third pond is very small, fishless, mostly covered with lily pads, and goes dry during most years. In three years of collecting, we've documented 41 species here. Some of the more interesting ones (to me, anyway) include Anax longipes, Nasiaeschna pentacantha, Aphylla williamsoni, Gomphus Didymops transversa, Macromia taeniolata, Tetragoneuria cynosura, Celithemis elisa, C. eponina, C. fasciata, C. verna, Dythemis velox, Libellula auripennis, L. cyanea, L. deplanata, L. flavida, Sympetrum ambiguum, S. vicinum, Lestes disjunctus australis, rectangularis, Enallagma aspersum, E. civile, E. doubledayi, E. dubium, E. geminatum, E. signatum, and Nehalennia integricollis.

A second productive collecting area near us is within and adjacent to the Talladega National Forest, near Tuscaloosa in west-central Alabama. The streams in this area usually have a sandy bottom and moderate flow. There are several bottom land hardwood swamps in this general area, as well as numerous springs and seepage Species we have collected here include antilope, Gomphaeschna G.furcillata, Epiaeschna heros, Boyeria vinosa. Dromogomphus armatus, Gomphus apomyius, G. lividus, Stylurus ivae, S. laurae, Cordulegaster maculata, C. obliqua , Macromia georgina, Helocordulia selysii, Somatochlora linearis, S. provocans, S. tenebrosa (we're still hunting for filosa and georgiana here), Tetragoneuria cynosura, Libellula cyanea, L. flavida, Calopteryx dimidiata, C. maculata, Argia bipunctulata, A. fumipennis violacea, A. tibialis,

and Nehalennia gracilis. Several of these species - namely Dromogomphus armatus, Stylurus ivae, Somatochlora provocans, and Nehalennia gracilis -- have rarely been collected in Alabama. Also in this area is Payne Lake, a medium-sized manmade lake with abundant shoreline vegetation, including water lilies. Here we've collected, in addition to all the usual things, Aphylla williamsoni, Enallagma vesperum, and Ischnura kellicotti.

Another interesting area near Birmingham is the Mulberry Fork of the Black Warrior River in Blount County. We collected the river proper and tributaries during 1992 and Basiaeschna janata, Didymops transversa, Gomphus apomyius, G. consanguis (mature larvae only), G. lividus, Tetragoneuria costalis, and Enallagma divagans, among other things. However, the most notable odonate in this area turned out to be one we didn't get. On 17 April 1992, Mary Jane and I found 10 fresh exuviae of Ophiogomphus alleghaniensis at Mill Creek, a medium-sized tributary to the Mulberry Fork. We returned to the stream several times over the next two months, with great expectations of loading up on the adults. Ken Tennessen, Jerrell Daigle, and Tim Vogt also collected there during this time. Our persistence was, unfortunately, not rewarded; the elusive "Ophios" were never seen. Oh well, Jerrell, there's always next year!

Other species of interest we've collected at various locations statewide over the past couple of years include Tachopteryx thoreyi, Aeshna umbrosa, Coryphaeschna ingens, Erpetogomphus designatus, Gomphus dilatatus, G. lineatifrons, G. rogersi, G. vastus, Dromogomphus spoliatus, Stylurus plagiatus, Helocordulia uhleri. Celithemis amanda, C. ornata, Calopteryx angustipennis, Enallagma durum and E. weewa. Also, I've collected the mature larvae of three species of Neurocordulia on the same day at a site on the Coosa River in central Alabama -- obsoleta, molesta, and virginiensis(?); is this unusual?

If anyone would like to collect some Alabama dragonflies, or would like for us to try to get them some specimens, just let us know. We'd be more than happy to have you visit.

P.S. We'd like to take this opportunity to thank Ken Tennessen for his encouragement and the generous sharing of his time and knowledge with two beginning collectors. Thanks, Ken! =|= =|= =|= =|= =|= =|= =|= =|=

MACROTHEMIS TESSELLATA (Burm.), A NEW DRAGONFLY FOR THE U.S.

Sidney W. Dunkle

Boris Kondratieff and Richard Baumann sent me a batch of Texas odonata to identify. Among them were three juvenile males of *M. tessellata*, so far as I know a first record for the U.S., though the species occurs in Mexico. The data are: Texas, Banderas Co., 12 June 1992, Sabinal River at Lost Maples State Park. The fact that three specimens were taken and that the specimens were juvenile (but not teneral) indicates that this dragonfly is a Texas resident. Collectors in Texas should watch for it, but keep in mind that a permit is required to collect in Texas State Parks.

[Note: This species is also known as *M. inequiunguis*. Sid's note brings the list of Texas *Macrothemis* to three species. The other two are *M. inacuta* (San Patricio, Hidalgo, and Kinney Cos.) and *M. imitans leucozona* (Caldwell and Uvalde Cos.). This genus should be sought along larger and slower streams, especially in the Valley and hill country of Texas. Ed.]

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NOTEWORTHY NORTHWESTERN ODONATA RECORDS FOR 1992

Dennis R. Paulson Slater Museum of Natural History University of Puget Sound Tacoma, WA 98416

Although I consider specimens essential as vouchers for distribution records, I submit these records, mostly sight reports, because I think we will increasingly have to consider sight reports by experienced observers of species easy to identify in the field.

Argia alberta - 2 m l f coll. at Fields Creek, Fields, Harney Co., OR, 7 June were the first record for Oregon (previous northernmost record Inyo Co., California).

Aeshna multicolor - A mature-looking male was seen at close range on 15 May in Seattle, King

Co., Washington (previous early flight date for the state 3 June); not surprising with the very warm early spring this year.

Libellula comanche - A male and then a pair ovipositing in tandem (unusual for genus) were seent at hot springs 5 mi. N, 4 mi. E Andrews, Harney Co., Oregon, 7 June; only one previous record for state, also Harney County.

Libellula subornata - Several males were seen along Fields Creek, Fields, Harney Co., Oregon, 7 June; only one previous record for state, also Harney County.

Pantala flavescens - Not previously reported north of Inyo Co., California, this species was seen at Fields, Harney Co., Oregon, 7 June, and Potholes Reservoir, Grant Co., Washington, 2l June. Both individuals were males (orange face) seen at close range but not capturable; this is not entirely surprising during one of the warmest summers on record in the Northwest (or is it an indication of long-term global warming?).

Pantala hymenaea - A few were seen at Potholes Reservoir, Grant Co., Washington, 21 June, where I had never seen them before; perhaps another consequence of the warm summer.

Sympetrum illotum - Im 2f coll. at a beaver pond on Beech Creek, 10 mi. S & 6 mi. E Fox, Grant Co., Oregon, 8 June. Males and pairs were common at this site, the first locality in eastern Oregon and an indication the species is considerably more widespread in the Northwest interior than I had thought. It is apparent that both the Columbia and Fraser rivers have served as pathways for odonate species dispersing through the Cascade Mountains, but details of occurrence of "west-side" or "east-side" species still remain to be worked out, especially in Oregon.

Tramea lacerata - Few seen around Burns, Harney Co., Oregon, 6 June; first record from Oregon but still no specimens from the state (recorded both Washington and California).

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AN INVASION OF TRAMEA CALVERTI ON THE NORTHEAST COAST

Ken Soltesz

On July 25, I received a phone call from Nick Wagerick in New York City, with the news that he had just collected a specimen of Tramea calverti at South Beach, Staten Island. Although calverti is well documented as a rare vagrant in the United States, with records from about seven states, it had never before been taken in the northeast above Maryland. Nick is well-known locally as a lepidopterist, but has in recent years developed a strong interest in odonates. He was familiar with calverti, having previously collected it in the tropics. I had never seen calverti myself, so when I met with Nick a few days later, I ran his specimen through DeMarmels and Racenis' keys (1982, Odonatologica 11(2): 109-128) and agreed it was correctly identified. We sent the specimen on to Nick Donnelly in Binghamton, assuming it to have been a single displaced individual as was apparently the case with other U.S. calverti records.

When Wagerick called again on August 6 to report three additional specimens, including a pair in tandem, at Central Park in Manhattan, it was clear that something unusual was happening, and the "odonate grapevine" was quickly alerted. The following day, August 7, Mike May drove to the southern tip of New Jersey and collected a female at Cape May Point State Park and sighted a male at the South Cape May Meadows. These were soon followed by numerous records from scattered localities in Cape May County (Mike May, Sue Bennett, Jim Dowdell) and Cumberland County (Bob Barber). The greatest concentration was that observed by Jim Dowdell at a small pond at the Kiwanis Community Park in Cape May City. There, between 26 and 28 August, Jim observed a maximum of 10 specimens, including two pairs ovipositing in tandem. On August 29, they had left the pond, a cold front having just passed through accompanied by strong westerly winds. When Mike May and I visited this pond on August 30, a few had returned and we managed to collect two males. I visited several localities in Cape May County on August 31, and sighted at least eight additional specimens.

T. calverti remained at Central Park, NYC, as late as August 31 (Nick Wagerick) and still

remains in the Cape May area on September 23, (Bob Barber). Associated with this invasion was at least one male *Tramea onusta* at Higbee Beach Wildlife Management Area, Cape May, by Jim Dowdell on July 28, also a new state record.

It's likely that the unusual weather patterns we've experienced in the northeast this summer are responsible for this invasion. The position of the jet stream and the absence of our usual "Bermuda highs" have made this summer one of the coolest and wettest in recent memory. Corbet (1962, A Biology of Dragonflies, pp. 194-196) discussed the mechanisms by which rain-pool breeders are directed to regions of heavy rainfall. Perhaps calverti was similarly directed to this area

FLORIDA RECORDS FOR 1992

Jerrell J. Daigle

I decided this year that I would make a concerted effort to find the rare Neurocordulia molesta, Somatochlora georgiana and S. provocans in Gadsden and Liberty County, Florida. Every weekend, I was out looking for the Neurocordulia dusk flight on the Apalachicola River near Bristol. In the mornings, I drove my van up and down logging trails in the nearby pine forest looking for cruising Somatochloras.

Although I did get Neurocordulia, they were virginiensis, not molesta. However, I did catch 2 mature males of Somatochlora georgiana plus 7 males and 5 females of S. provocans in the pine forest. Other interesting dragonflies seen were Dromogomphus armatus, Libellula flavida, Progomphus bellei and Somatochlora calverti. The records are listed below:

1) Apalachicola River, Hwy. 20, Bristol, Liberty County

Neurocordulia virginiensis 5 June 1992 (1 male); 19 June 1992 (2 males); 26 June 1992 (1 male, 1 female)

2) Clark Branch, Whittle Road, West of Greensboro, Gadsden County

Somatochlora georgiana 28 June 1992 (2 males)

Somatochlora provocans 6 June 1992 (1 female) 19 June 1992 (1 male, 1 female), 20

June 1992 (1 male, 1 female), 26 June 1992 (1 male, 1 female), 28 June 1992 (3 males)

**Tachopteryx thoreyi* 10 May 1992 (1 male)

3) Camp Creek, Whittle Road, West of Greensboro, Gadsden County

Somatochlora provocans 6 June 1992 (1 male, 1 female)

4) Moore Branch, Cody Road, Cody, Jefferson County

Tachopteryx thoreyi 7 June 1992 (1 male) (New County Record)

Ken J. Tennessen, Renee Hoess, and I went back to Whittle Road on July 27, 1992. We collected several Somatochlora calverti but we did not see or catch any S. georgiana or S. provocans. Many thanks to Renee from Switzerland who was spending his vacation collecting Florida dragonflies. Renee had visited Dr. Westfall earlier and he was on his way to the Everglades.

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ENDANGERED ODONATA OF THE NORTHEASTERN UNITED STATES AND THE DSA

Richard Orr 9334 Farewell Rd., Columbia, MD 21045 Telephone: (W) (301) 436-8939; (H) (410) 730-7290

The Entomological Society of America (ESA) is conducting a joint workshop with U.S. Fish and Wildlife Service (FWS) on Wednesday morning, February 24, at Williamsburg, Virginia. The purpose of the workshop is to discuss and gather information on the status of candidate insect taxa under consideration for listing as endangered or threatened in the Northeastern United States.

The Fish and Wildlife Service is seeking information on 59 insect species, of which 11 are odonates. The eleven species listed and the states in which they are known to occur (based upon FWS data) are listed below. The asterisk marks those states in which the FWS has had no reports of this species since at least 1963. I have not updated the scientific names on any of these species but am reporting them as they have been sent to me by the FWS.

- 1. *Gomphus notatus* MD, WI, CAN, IA*, IN*, KY*, MI*, NY*, IL*, OH*, PA*, TN*, WV*, AL?*, GA?*
- 2. Gomphus parvidens carolinus NC, SC
- 3. Gomphus septima AL, NC
- 4. Gomphus townesi FL, AL, SC, NC, TN
- 5. Macromia margarita VA, NC, GA, SC
- 6. Ophiogomphus anomalus ME, WI, CAN, NJ*, NY?*, PA* [the New York record is good. Ed.]
- 7. Ophiogomphus edmundo NC*
- 8. Ophiogomphus howei KY, NC, PA, TN, VA, WI, MA*, NY*
- 9. Ophiogomphus incurvatus alleghaniensis WV, VA, AL, TN?
- 10. Progomphus bellei FL, NC
- 11. Williamsonia lintneri CT, NY, NJ, MA, RI, NH

The FWS is looking for additional distribution information, biological information, species on the list that shouldn't be, species that are not on the list that should be, changes in scientific names and so on.

I have been asked by the ESA to provide a workshop for the FWS biologists on the "Introduction to the field identification and natural history of eastern dragonflies". This two hour workshop will be part of the ESA Eastern Branch meeting taking place in Williamsburg during the same period as the endangered species workshop.

The endangered species workshop provides an opportunity for the DSA to present to the Fish and Wildlife Service information and guidance into how to focus on endangered or threatened species of dragonflies and damselflies. I assume that many of the DSA members have bits-and-pieces of information on the distribution and biology of these uncommon species which are not readily available in the literature. Particularly absent are detailed descriptions of these insect's habitat preferences.

I will be participating in the endangered species workshop in addition to giving the dragonfly workshop. Therefore, it would be easy for me to convey information accumulated by the DSA membership directly to the FWS biologists. I believe that presenting information as a DSA society representative would have more impact than information supplied by individuals.

Nick Donnelly has requested similar information before from the members of the DSA. See page 4 in Volume 1 of the ARGIA for "U.S. Endangered Species - A request for information". Nick is still involved with the FWS listing of Odonata and is aware of the endangered species workshop. If you supplied information to Nick relating to his article you need not duplicate your information to me unless an update is warranted.

If I can gather the membership's data on these species early enough (say by November) I could consolidate the information and present it in the ARGIA for review to all the members before the FWS workshop. I could then present to the FWS the original published information and the review comments as a spokesman for the DSA. I will be careful to make sure that those DSA members who supplied me with dragonfly information will3 receive full credit for their observations and data.

I would also like to encourage any DSA member who wanted to participate in the endangered species workshop to do so. Unfortunately, unless you are a member of the Entomological Society of America the registration fees tend to be fairly high. But if you do plan on attending the ESA Eastern Branch meeting I hope you would let me know because I could sure use your support at one or both workshops.

If you have any information that is pertinent please send it to the address listed above (my address has changed since the last ARGIA listing) before the end of November. Thanks!

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RESPONSE TO 'FROM THE EDITOR'S DESK' - ARGIA 4(1), COOK; AND THE RESPONSE FROM ORR, ARGIA 4(2). IS ENTOMOLOGICAL COLLECTING OVER REGULATED?

Robert Glotzhober

Associate Curator, Natural History; Ohio Historical Society; 1982 Velma Avenue; Columbus, Ohio 43211-2497.

While I basically agree with Carl Cook, I find myself much more in line with the changes in tone and emphasis indicated by Richard Orr. Yes, the biggest threat to Odonata is certainly destruction or pollution of the aquatic homes of their larvae. Yes, it is actually a potential waste to have total bans on collecting - even for scientific purposes. On the other hand, restrictions on collecting within preserves are also necessary and important for the long-term preservation of these insects.

The agency I work for manages over 50 historic, archaeological, and natural sites around Ohio. Several of our natural areas contain habitats and Odonates that are rare in the state, and in one case - not found anywhere else in the state. We issue collecting permits to qualified researchers working on specific projects which meet our agency's approval. (Qualified does not necessarily mean a degree, but at least a serious worker, capable of advancing scientific information from their work.) We are eager to have such research take place as it expands our understanding of these areas, and increases our ability to properly manage them.

The very concept of requiring research permits means we simultaneously prohibit collecting or disturbance of natural features unless it is part of an approved permit. While this may prevent young, budding entomologists etc. from using a "butterfly net and pinning boxes" to nurture a future interest and/or career, it is critical to have such control. Many of our sites are very popular, and to have "open season" on collecting of plants, rocks, insects, etc. could easily multiply into a serious impact on the area. One of our sites, Cedar Bog, is so fragile that we allow access (other than by permit) only on a boardwalk and only at prearranged times with a naturalist guide. While we cannot allow the freedom of random collecting, we offer a variety of educational programs to the public - for adults and children - to provide slightly more formal (but perhaps equally effective) avenues for people to develop avocational interests in our natural world.

In working on the Ohio Dragonfly Survey I have generally found similar approaches for permits from the Ohio Division of Natural Areas and Preserves, the Ohio Division of Wildlife, the Ohio State Parks, and various metro parks districts. In one case I had to work long and hard to convince one of our metro parks to permit my collecting. They needed some convincing that it was necessary to collect and preserve insects, when bird surveys could be completed without collecting. When I finally got my permit - which

has been enthusiastically renewed several years now - it contained restrictions about avoiding collecting in areas and times visible to the general public. While this has caused some inconvenience for me, I understand their concern that other visitors not get the idea that is OK to collect whenever and whatever they want. There are still areas in Ohio where a person can go and collect insects without any special permits. However, as our population grows and "wild places" decrease, I am afraid such freedom will become less and less common.

I have not been able to find a copy of the Peterson Field to Western Butterflies, but will continue to seek one out and read the collecting policy of the Lepidopterist Society. The guiding committee of the Ohio Dragonfly Survey likewise had some concerns about over-collecting. I know of one skilled worker from Ohio, who in September and October of 1950 made three visits to one of our better dragonfly sites. In addition to other Odonates, on September 10th he collected 9 male Aeshna constricta. This was followed on September 15th with 3 males, and on October 5th with 16 additional males. While this provides a nice sample of insects for taxonomic study, in a state which has lost 90% of its wetlands and had most of its rivers severely impacted, this seems excessive and unnecessary. Our committee responded to this - and to the way others may view it - by establishing recommended guidelines which we publish in a handbook provided to all survey workers. Our guideline is simply,

"that no individual (or group collecting in the same place on the same day) collect more than four specimens of identifiable species from the same location on the same day. Collectors not skilled in identification need to use prudence here. Sampling the entire diversity of an area is desirable, but it may be better to miss one or two species than to over-collect."

These guidelines may be over-restrictive in the view of some DSA members. They would certainly make it difficult to do the type of collecting DSA members do at our annual collectors meetings. What I ask you to remember is that these are only guidelines, and that our survey workers are a mixture of professionals and amateur naturalists. I believe these conservative guidelines have opened more doors for us from

preserve managers than they have ever hindered our objectives. The managers of natural areas feel more comfortable about individuals who approach their areas with empathy for the agency's concerns for avoiding over-collecting or damage to the environment.

UPDATE ON THE OHIO DRAGONFLY SURVEY

Robert Glotzhober

July of 1992 (as I write this) finds the Ohio Dragonfly Survey mid-stream in our second year of work. At this point our database contains about 1,000 current records plus over 4,000 records from existing collections - some of which go back to 1897. Our data is stored in an IBM compatible database from Buttonware, Inc. known as PCFile 5.0. This will be upgraded in the near future to their more recent version, and both versions are compatible with DBase programs. I am expecting to receive very soon a printout and diskette with the data on all Odonata from the collections of Cleveland Museum of Natural History. This museum includes the collections of T. Edward Perry who worked extensively in northwest Ohio during the 1970s and early 1980s. We are also beginning plans to hire a grad student to continue logging data from the vast collections at Ohio State University (this work was about 1/16th complete by one of our former workers). We are also constantly recruiting new workers to help with the survey field work - so I anticipate substantial growth of data by the end of 1992.

Our ARGIA editor asked me to provide a status report on our state list, especially as compared with those produced by Dr. Borror. I count a minimum 15 papers that have added or subtracted species from the state list since Dr. Borror's last publication in 1942. For anyone interested, I'd be happy to send a complete two pages of Ohio bibliography, but for brevity in this newsletter I would refer you to:

Perry, T.E. 1983. Additions to state and local lists of dragonflies and damselflies (Odonata). Ohio J. Sci. 83 (3): 141.

The current Ohio list shows 155 species, 3 of

which are questionable but are being temporarily kept on the list to alert workers to watch for them. Our recent work has not added any new species for the state, though has added a significant number of new county records. Of the collections we currently know of, between 1980 and 1991 only 88 of these 155 species have been collected.

This past winter a few of us worked over the published literature and our database information to develop a draft set of county distribution maps. These are still very crude and not available for distribution yet, but they did give our workers something to help them anticipate what species they might look for in their part of the state.

One year of work raises more questions than answers. Last week as I contemplated our task, I was drawn back to our draft county maps. An analysis of those maps raises some questions that perhaps DSA members can provide input to help answer. How do we determine what species should be recommended to the Ohio Division of Wildlife for listing as State Endangered Species? My count showed 34 species known only from 1 or 2 counties in the state. Another 24 species are known from 3 to 5 counties. (Ohio has 88 counties, a population of about 11 million people, and covers 26.4 million acres or 10.7 million hectares.) Obviously a critical concern is if we still have these species in the few counties where they were previously recorded. Beyond that what other factors do we need to consider? Some of the Macromiines, Gomphids, and Aeshnids are hard to collect no matter how numerous they are - how do you factor that in the equation? Perhaps watershed instead of counties should be used for riverine species, but not for pond and other wetland species.

If we use county distribution only, we <u>might</u> now suggest that 22% of Ohio species are endangered, and another 16% threatened. Actually the current official state list for mussels shows a total of 43% either extinct, extirpated or endangered. Maybe 22% to 38% is not too far out of line with this. Obviously, it is too soon to make final statements. We need to do a lot of field work yet, and we could use the comments of other DSA members.

NEW AND NOTEWORTHY

ARCHILESTES GRANDIS IN NEW YORK

Skip Blanchard has recently succeeded in adding this species to the New York list. He found a female near Edgewood, Suffolk County (Long Island) at the Oak Brush Plains State Preserve on 20 Aug. 1992. This is more than forty years after the species was found in surburban Washington (1949) and Philadelphia (1950).

ANOTHER RECORD OF ENALLAGMA BASIDENS FROM NEW YORK

This species was taken by Skip Blanchard at Doodletown Reservoir in Rockland Co., 17 June 1992. This is the third record from the state.

ARGIA NAHUANA FROM OREGON

Richard Orr has extended the range of this species to southeastern Oregon: Illinois River in Josephine County. He found it both at 8 Dollar Mountain and Illinois River St. Pk. on the 6th and 7th of August of 1992.

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INTERESTING PLACES

John Michalski 90 Western Avenue, Morristown NJ 07960

This August my wife, Caroline, began graduate studies at the University of Kansas in Lawrence. Having helped move her in and settle her down in her new place, I returned to New Jersey, making several detours along the way to look for odonate habitats. What follows are some street directions to a few of the nicer places that I found. If any of you are in the neighborhood, you might give one of these a try.

Missouri: Aux Vasse Creek, Calloway County

Pronounced "uh-voze" with the accent on the second syllable. On Interstate 70, you cross the Aux Vasse at about mile 153, but you can't access it from there. I came to this spot in mid-August and found (among other things) *Progomphus obscurus* flying around in cop, as well as

Neurocordulia xanthasoma and a very large black-and-yellow thing that could have been Macromia or Cordulegaster, though I did not catch it. In June this place might be a real winner. The creek is about 30 feet across, knee-deep and with a flat stone bed, the whole thing nestled in some nice woodland with a few rolling farms sort of nearby. This is how I got there:

From Interstate 70, get off at exit 148 (Kingdom City), just outside of Columbia. If you were heading west you're now on the north side of the highway; if you were heading east you have to get on the north side of the highway. From the exit ramp, drive north and turn right at the first available road, which is directly opposite county road FF (the road you're taking has no designation). Drive approximately 5.2 miles on this road, at which point you'll come to an intersection with a road that crosses back over the highway (there is no exit from the highway at this crossing, however). Almost just opposite you is a small country road that continues in the direction you want to go, but DO NOT TAKE THIS ROAD; it's private. Instead, turn left (heading north again) and take the very next available right turn, which is rather soon. You're now on a country road that runs between several farms. Drive on this road for 0.4 miles, at which point this road ends at a "T" intersection. Go right and drive about 0.8 miles, bearing left and driving downhill when you come to the small white wooden church (the Aux Vasse Presbyterian). You will very soon (0.2 miles) come to a brand new concrete bridge; you have arrived!

Kentucky: Slate Creek, Bath County

The weather was rotten the day I found this spot, but a large *Hagenius*-type thing floated past me, and the place did look promising. The creek at this point is about 20 feet across or so, stony, and wooded. I saw a large Ichneumon fly, several birds and the river was full of large clams, so the environment seemed quite healthy. Here's how I got there:

From Interstate 64, take exit 121. If you were heading east, you'd make a right turn onto State highway 36 East. (I suppose if you're heading west you'd just make a left onto the same road.) Before long you'll actually drive right over the creek, where there's a left turn and little places

along the road that fisherman must park their trucks at. But if you continue on route 36 until you've gone about 0.75 miles south of Interstate 70, you will come to a small roadside park (a sign even leads you to it, which says "ROADSIDE PARK"). This is the Bourbon Iron Works historic site, and there's a nineteenth century stone furnace in view from the road. That's the place. Other areas downstream looked just as good.

Kentucky: stream in Carter County

There's a great-looking stony creek, about 6 or 10 feet wide, that you can see from Interstate 64 going east, some miles before exit 156. It's not easy to get to, but did look promising. The weather was rotten when I got there but the area was so good for butterflies that I'm tempted to say it might be sensational for odonates as well. Here's how I got there:

From Interstate 64 take exit 156. Get onto route 2 South. From 2 South get onto route 60 West. You drive through a small town named Globe, and the creek crosses 60 just at its intersection with county road 1662. (The creek here is about 12-18 feet across and may be better than the spot you can see from Interstate 64.) To get to the spot you see from the highway, take road 1662 and drive it for a short while, at which point you can see the highway overhead and the creek to your left. Sadly, it's not accessible unless you cross somebody's property, but if they're out there, why not just ask? A second, public-accessible spot is further along road 1662, north of interstate 70, where 1662 forks with county road 1024. There's a little gravel area you can park at and the creek is just downhill from you.

If you try any of these places, kindly let me know how you do!

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THE USE OF COMPRESSED-AIR SQUIRT GUNS IN COLLECTING ODONATES

Ken Soltesz

Does this sound familiar? You're wading up some rapids, approaching a much-desired gomphid perched atop an emergent rock. As you come within swinging distance, you examine the shape of the rock and realize that if you pancake this guy, he's going to escape between the rock and the net rim. So you sweep him, and end up launching him into space, or worse yet, chopping him in half. If this sounds like the story of your life, you may want to try an alternative which I happened upon this summer.

Having once read somewhere about an odonatist who used a spray bottle filled with detergent to collect damselflies, I decided to apply the same principle to the new pump-action, compressed-air type squirt guns that were currently popular with the kids in my neighborhood. These come in a variety of models and are available at toy stores. The model I chose was the "Super-soaker 200" (made by Larami), a pink, yellow and green weapon capable of throwing a pressurized stream of water some fifty feet or more. Much to my surprise, this thing really worked for dragonflies. Although it had some limitations (forget the Macromias, it won't shoot down a dragonfly in flight; and leave your net in the car, you'll need both hands free for the squirt gun), I found that I had nearly a 100 percent success rate on perched gomphids, once I had developed some technique.

A few pointers:

- 1. A close approach is still the best plan. The heavy impact and sudden dowsing which the dragonfly receives from a distance of about six feet or closer will surely knock him into the water. The detergent solution wets him so that he can't free himself from the water surface. I tried a few long-distance shots but had poor results.
- 2. It's best to approach from downstream, so that the specimen is carried towards you by the current. Otherwise be prepared to scramble downstream after your specimen and risk having some trout beat you to it.
- 3. Add some detergent to the water in order to wet the dragonfly. Wash the detergent off the specimen thoroughly before releasing it or before filing it away in an envelope. The soap turns the wings mushy.

I have found that the increased success rate of the squirt gun over the net has apparently reduced collecting bias in some cases. For example, I had collected only *Ophiogomphus aspersus* on several visits to the Shawangunk Kill in Ulster County, N.Y. and had assumed it to be the only Ophiogomphus there, or at least the most abundant. But a two-hour visit to the river with the squirt gun produced four species (aspersus, carolus, mainensis, and rupinsulensis) in nearly equal abundance.

YOU CAN PHOTOCOPY DRAGONFLIES

John Michalski

I have been visiting the American Museum of Natural History in New York City to examine their odonates from New Guinea. At the moment their policy is not to allow most researchers to keep sample specimens from their series. Borrowing I suppose is possible but you rarely know how long you're going to need the loan and sometimes you wish you hadn't returned them as soon as you did. Since I have been writing keys to genera and species, this has been an inconvenience. But I have found a way around the situation that has become, in a very positive sense, the next best thing.

If you are in a situation where you are unable to borrow a needed specimen — if, for instance, you are abroad and can't make the necessary arrangements — or, conversely, if loaning out a particular specimen is inconvenient or undesirable for you, then give this a try: Slide a piece of white paper between the wings, so that only one side will show. Just place the specimen on the photocopier and cover it somehow and take a copy. If you play with the settings on the machine a little, you will get a print of the wing venation so good and clear that it will suffice for dichotomous keys, making detailed measurements, even basic descriptive work.

Eureka! You can examine the print under the microscope or through an eyepiece, just like the real thing, too. A second setting on the machine can be worked out to make a copy of the body markings. The picture is life size and you've saved yourself all of that note-taking. Plus you have an $8\frac{1}{2} \times 11$ " sheet of paper to write all the data and other notes you want! I have several species in my "collection" now, all in a pendaflex folder in my file box. I can refer to them each and every time a

new question pops into my head, and I don't have to inconvenience anybody for that. Mind you, this won't help with the genitalia and so forth, but that's what the camera lucida is for. (In fact, those of you with access to a copier that makes enlargements might like to give it a try with the appendages or genitalia, and I foresee great possibilities in making india ink drawings using the photocopy in lieu of a black-and-white print.) For wing venation, at least, it will certainly be easier to mail the copy than an actual specimen. Good luck, xerophiles!

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THE DRAGONFLY SOCIETY OF AMERICA'S FOURTH ANNUAL COLLECTORS' MEETING, BEND, OREGON JULY 16-19, 1993

Steve Valley 1165 S.W. Lawrence Avenue Albany, Oregon 97321 (503) 928-4467

Dragonfly collecting in Oregon will be a new experience for most of you. We do not have the high species diversity of the Eastern U.S., but the population density at some sites is truly staggering! Oregon has an area of 96,981 square miles and the elevation ranges from sea level to 11,235 feet on Mt. Hood. More than half of the state is public land. There are over 62,000 miles of streams and thousands of lakes (800 square miles of water). Habitats include the coast and the coast range, the Willamette Valley, the Cascade Mountains, and the high desert. Some of the species found here are unique to the Pacific Northwest. Species of interest that may be encountered in Oregon include Tanypteryx hageni, Cordulegaster dorsalis. Octogomphus specularis, Macromia magnifica, Somatochlora albicincta, S. semicircularis and S. minor and of course Gomphurus lynnae from southeastern Washington.

Bend is a centrally located city that is less than an hour drive to many lakes in the Cascade Mountains, including Todd Lake, a large T. hageni site. To the east of Bend is the Oregon high desert which is broken by many forested mountain ranges. Ophiogomphus severus, O. occidentis, M. magnifica, Aeshna palmata, A. umbrosa, A. interrupta, A. juncea, S. albicincta, S. semicircularis, Leucorrhinia hudsonica as well

as many others can be found in these regions.

Those of you who fly to Portland can rent a car and drive to Bend (170 miles) or take a commuter flight to Redmond which is 16 miles from Bend. Rental cars are available in Redmond. Hwy 26 from Portland passes Still Creek Forest Camp, a well known *Tanypteryx* site.

Many of the people who were in Tennessee this past summer expressed an interest in camping. On our first night in Bend I think we should stay in a motel and take care of DSA business and plan our collecting strategies. Most of the sites I have in mind to visit have camping facilities and are within an hour drive of motels, showers and food.

I would suggest that anyone interested in coming to Oregon should request some maps from:

USDA Forest Service Pacific Northwest Regional Office 319 S.W. Pine Street, P.O. Box 3623 Portland, Oregon 97208 (503) 221-2877

Maps to request:

Willamette National Forest Deschutes National Forest Mt. Hood National Forest Ochoco National Forest Winema National Forest Malheur National Forest

These maps cost \$3.00 each and are very detailed.

Another set of maps that may be useful is the Oregon Atlas & Gazetteer, a book of topographical maps for \$14.95 from:

DeLorme Mapping P.O. Box 298-6500 Freeport, Maine 04032 1-800-227-1656 ext. 6500

I prefer the Forest Service maps but having the whole state in one book is handy.

Also call or write for free info:

Oregon Tourism Division 1-800-547-7842 ask for:

Oregon - The Official Travel Guide

Where to Stay in Oregon State Highway Map State Campground Map

Washington State Tourism Development Division: P.O. Box 42513 Olympia, WA 98504-2513 (206) 586-2088 or 586-2102 ask for:

Destination Washington: Official Washington State Traveler's Guide

Some suggested reading materials if you can locate them:

Kennedy, C.H. 1914 Notes on the Odonata or Dragonflies of Bumping Lake, Washington. Proc. U.S.N.M. 46:111-126.

and Ecology of the Dragonflies (Odonata) of Washington and Oregon. Proc. U.S.N.M. 49:259-345.

and Ecology of the Dragonflies (Odonata) of Central California and Nevada. Proc. U.S.N.M. 52:483-635.

Paulson, D.R. 1983 A New Species of Dragonfly, *Gomphus (Gomphurus) lynnae* spec. nov. from the Yakima River, Washington, with notes on the pruinosity in Gomphidae (Anisoptera). Odonatologica 12 (2): 59-70.

Schuh, J. 1936 A Contribution to the Knowledge of the Odonata of Oregon. An unpublished thesis from Oregon State University.

Anyone interested in collecting G. lynnae should plan on arriving at least 1 week earlier than the meeting because it usually flies earlier than July 123 (Robin and I visited the type locality July 19, 1992, and found no G. lynnae. We did find O. occidentis and a number of other species perched in the shade to escape some of the heat on this 105 deg. day.) Tanypteryx is usually best July 18 until August 1.

I plan to be available as a guide for at least 3 weeks in July if anyone wants to collect before or after the official meeting and as long as my employer does not modify my plans. Please feel free to contact me with your plans and suggestions

and for more information.

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TRINIDAD COLLECTOR'S UPDATE

John Michalski 90 Western Avenue, Morristown, NJ 07960 (201) 829-0094

In ARGIA Vol. 4, Number 1, I offered (along with my wife Caroline) to host a collector's Several of you have gathering in Trinidad. affirmative responded in the (including, apparently, the entire USNM staff) so here we go again: Who wants to do this thing? Caroline is now enrolled in grad school, but I can certainly make the commitment to lead this trip and arrange the stuff. Now it's your turn to let me know how you'd like to do it. My suggestion is to plan the trip sometime between June and August, since those of us in academia can manage that better; also it's normally the rainy season then, which in Trinidad is good for what we want to do. Apart from that, I'm game for whatever the majority wants to do. Jerrell has made the suggestion of following the Trinidad gathering with some islandhopping around the Caribbean, though I can't make any claim to knowing my way around anyplace but Trinidad. So let me know what you think. Summer '93? I can already picture Carl out there doing the limbo to the accompaniment of steel drums! Lower, Carl, lower!!

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XII INTERNATIONAL SYMPOSIUM OF ODONATOLOGY INTERNATIONAL HOUSE, OSAKA

2-6, Uehommachi 8-chome, Tennoji-ku, Osaka 543, Japan I-8 (-II) AUGUST, 1993

General Information

The Twelfth International Symposium of Odonatology will be held in Osaka, Japan, during 1-8 August, 1993. Scientific sessions, including oral contributed papers and poster displays, will be held in halls of the International House, Osaka. Related special events include an exhibit of beautiful photographs and specimens of dragonflies and a sale of literature on odonatology.

Collecting apparatus including collapsible nets with telescopic rods, and arts and crafts with dragonfly motives will be for sale in a department store near the symposium site. A mid-symposium trip will visit the shore of Lake Biwa and some hills in Shiga Prefecture. An alternative trip will visit Kyoto for sight-seeing, and both trips will meet in the evening in Kyoto to have dinner together. A post-symposium (7-8 Aug.) tour will afford the pleasure of seeing crepuscular flights of larger aeshnids. A traditional way of catching flying aeshnids by a thread with two small stones will be demonstrated by some experts, and any participant may try it. An optional tour will be organized on August 9-11 to visit the famous dragonfly sanctuary and dragonfly museum in Nakamura, Kochi Prefecture.

Housing will be available at Hotel International House, Osaka and some nearby hotels. For younger students, home stays may be available; these are not confirmed at present.

The Organizing Committee is trying to raise funds to allow the participants to enjoy good accommodations at greatly reduced rates. Estimated expenses are as follows:

Registration (including mid-symposium trip) ¥20,000 (ca. \$168)

Accompanying family members ¥5,000 (ca. \$42)

Students

¥10,000 (ca. \$84)

Housing (single)

¥4,000 (ca. \$34)

(twin)

¥3,000 (ca. \$25)

S.I.O. Banquet

¥5,000 (ca. \$42)

Post-symposium Tour (transport, food and lodging) ¥10,000 (ca. \$84)

Registration

Registration, Abstracts, and Housing Reservation Forms will become available after the "Advanced Announcement" which will appear in December. Information will be available from Kiyoshi Inoue, Organizing Secretary, Fuminosato 4-chome, Abeno-ku, OSAKA, 545, Japan. The Fax No. is 81-6-621-1328, which is more convenient than telephone.

UPDATE ON ODONATA BOXES

Nick Donnelly

In a recent issue I noted that there was a possibility of obtaining boxes for the storage of Odonata specimens. These are the so-called "shoe boxes", which are between 12 and 15" long and larger than 3 x 5" in cross section, to accommodate envelopes with 3 x 5" cards.

A few people responded, but too late to get in on the order which was then in progress. There continue to be requests for storage boxes, so we will try again.

What we will need is a firm order totalling a minimum of 200 boxes. No manufacturer will touch a smaller number, except at a prohibitive price. I have had several enquiries ranging from needs of 10 to 50 or more boxes. I believe we can assemble a complete order of 200 or more. A further problem is that the boxes will probably themselves be boxed for shipment in units of 16 or more, and I believe we will have to find out this number and ask for orders that are multiples of whatever the number happens to be. Otherwise, whoever coordinates the order will have to unpack the cartons, and then repack them for onward shipment.

I am guessing that the minimum price will be in the neighborhood of \$5 per box. I am hereby requesting for people who have indicated a need for boxes to contact me again, even if you have sent in a previous letter of interest. Please tell me, (1) approximately how many boxes you will buy; (2) whether you are willing to buy a rounded number to accommodate shipping carton size, and (3) whether you are willing to pay about \$5 per box.

If there is sufficient interest, I will try to find a coordinator to deal with a box company and to arrange for the purchase.

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ODONATA ENVELOPES

Several people have enquired about plastic envelopes. The only type that is available from a commercial supplier to my knowledge is the 1 mil mylar "Odonata specimen envelope" which sells for \$4.30 per 100 or \$38.70 per 1000. The vendor is BIOQUIP, 17803 LaSalle Ave., Gardena CA 90248-3602. Tel: 310-324-0620. They also sell the nets most of us use, as well as other supplies.

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CONTRIBUTIONS TO ARGIA

We are currently receiving many fine contributions to our newsletter. Please continue to submit any items of news that you consider of interest, and I will try to include as much as space allows.

I prefer to receive manuscripts on floppy disk. I can handle 3.5" or 5.25" disks of either low or high density. It is best to submit your contribution in a text-file (ASCII file), but I can translate most of the current word-processing languages. Please send along a hard (paper) copy in any case.

Do not format your article in any way. This means no italics, no bold-face, no underlined words. Also, please do not indent paragraphs -- keep them flush left. Please do not justify the text. It is far more straight forward to do all the formatting at this end rather than to undo your formatting.

If you have no word processor, please send along a paper copy anyway.

Please do <u>not</u> send in lists of odonates, and invite me to extract what I want for the newsletter. This is not practical. It is preferable to send in narrative accounts of trips, or of local collecting, with the more interesting species listed.

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

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THIS IS A GOOD TIME TO RENEW YOUR MEMBERSHIP. REMEMBER - DUES ARE ONLY \$10 (REGULAR MEMBERSHIP) AND THE BULLETINS OF AMERICAN ODONATOLOGY IS ONLY \$15 PER YEAR. ALSO, PLEASE FIND NEW MEMBERS FOR US.