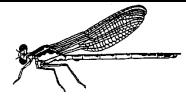
Ode News



An Occasional Newsletter about Dragonflies and Damselflies in Southern New England

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ell, it's time to dust off the nets and head for the field. After another mild winter and early spring, the first ode of the year appeared on a record early date this year – April 1st (no fooling!). The ode season seems to get a bit longer each year; if present trends continue, in a couple of decades we may have odes on the wing year-round! Water levels in most areas have been very low throughout the winter, though some soaking rains in April have eased the situation, at least temporarily. However, the longrange forecasts call for drought conditions again this summer, so we'll have to see what transpires.

Odonatists are tingling with anticipation over the impending publication of Sid Dunkle's new *Dragonflies through Binoculars* which is scheduled

for this month (May). Also due soon is the new manual by Minter Westfall and Michael May, Manual of the Dragonflies of North America, scheduled for June publication, though that now seems unlikely. Both of these books can be ordered from the International Odonate Research Institute (web site: www.afn.org/~iori). The appearance of these texts should be watershed event in North American odonatology! Also imminent is a new publication on California odonates: Common

Dragonflies of California, a Beginner's Pocket Guide by Kathy Biggs; see page 12 for details.

In this issue Rick Heil describes the evening dragonfly swarms he discovered in West Newbury, Blair Nikula offers some thoughts on new species to look for in southern New England, and Bob Muller describes a successful "ode-venture" in Florida. Also in this issue is a schedule of dragonfly walks and workshops for the upcoming season. Among these is another two-day workshop in late May arranged by Dave Wagner at the University of Connecticut (see page 3 for details), and the Northeast DSA field meeting, scheduled for Orange County in southeastern New York over the weekend of 9-11 June. It looks like another hectic season — we hope to see you in the field!

FIRST 2000 ODES!

The first New England ode of 2000 was seen by Dennis Peacock and David Ludlow on Duxbury Beach in Massachusetts on April 1st. Although they did not see it

well, Dennis described it as large and thought it was a Common Green Darner (Anax junius). Given the date, location, and behavior, it almost certainly was a very early migrant of this species. The date appears to tie the earliest ever for an odonate in New England. There is an old April 1st 1923 specimen of Ringed Boghaunter (Williamsonia lintneri) from Massachusetts. On 6 April, Rick Heil found an Eastern Forktail (*Ischnura verticalis*) in Rowley; however, it was in an aquatic greenhouse so its provenance is suspect! Ginger Carpenter reports

finding over 100 Ringed Boghaunter (*Williamsonia lintneri*) exuviae with some freshly emerged adults at a Rhode Island site on 14 April. She believes the first may have emerged as early as 10 April. We wonder how they fared during the long stretch of cold, wet weather that prevailed during the last half of the month?



Red-mantled Saddlebags (*Tramea onusta*) – male Santa Ana N.W.R., Texas

Will this be the next new species in New England? (See page 7)

NORTHEAST DSA MEETING

The Northeast regional meeting of the Dragonfly Society of the Americas will be in the Sterling Forest in Orange County, southeastern New York on the weekend of 9-11 June. Sterling Forest is in the Hudson Highlands and has extensive forest cover with small lakes, bogs, and streams. It recently was acquired by the state of New York and is currently being assessed for biological diversity.

In 1989, a population of Sable Clubtail (*Gomphus rogersi*) was discovered in this area, the northernmost occurrence of this southeastern species. Other species found here include Cyrano Darner (*Nasiaeschna pentacantha*), Arrowhead Spiketail (*Cordulegaster obliqua*), White Corporal (*Libellula exusta*), and Slender Bluet (*Enallagma traviatum*). On Sunday, there will be a trip to the Wallkill N.W. R. on the New Jersey – New York border.

Trip leaders will be Karen Frolich (New York State

Biodiversity Research Institute) and Paul Novak (New York Natural Heritage Program). For information, contact Karen (kfrolich@MAIL. NYSED.GOV) or Nick Donnelly (tdonnel@binghamton.edu).

RHODE ISLAND ATLAS

The very successful Rhode Island Odonate Atlas is entering its third year, under the leadership of Ginger Carpenter. In the first two years of the project, 14 new species have been added to the state list, bringing the total to 129 species. An organizational meeting in early April attracted over two dozen enthusiastic volunteers. If you are interested in participating in the atlas, at any level, contact Ginger Carpenter at the Nature Conservancy in Providence (phone: 401-331-7110; e-mail: gcarpenter@tnc.org)

2000 WALKS & PROGRAMS

Following are some of the activities scheduled in southern New England this season. Some of these events are free, while others are scheduled by organizations and require registration and a fee. Many are weather dependent, so if in doubt, please call ahead.

Friday, 26 May – Saturday, 27 May: Workshop on the Dragonflies and Damselflies of Lower New England. Two-day workshop at the University of Connecticut (see next page for details). (Fee)

Saturday, 3 June: Tom's Swamp, Petersham.Meet at 9:00 a.m. at the Petersham Commons on Route 32. We'll search for the rare Ebony Boghaunter (*Williamsonia fletcheri*) and other early season species. Leader: Blair Nikula (508-432-6348; e-mail: odenews@capecod.net).

Monday, 5 June: "Introduction to Dragons and Damsels." Evening slide program for Litchfield Hills Audubon in Bethlehem, CT. Annual members (only) dinner meeting.

Friday, 9 June – Sunday, 11 June: DSA Northeast regional meeting. Sterling Forest, Orange County, New York (details above).

Friday, 14 July: Nickerson State Park, Brewster.

9:00 a.m. – 12:00 p.m. "In Search of Dragons & Damsels," Massachusetts Audubon walk with Jackie Sones. To register, call: 508-349-2615. (Fee)

Sunday, 23 July: Ipswich River Wildlife Sanctuary, Topsfield. 9:00 a.m. – 12:00 p.m. Workshop by Jackie Sones. Slides and discussion, followed by a walk. To register, call: 978-887-9264. (Fee).

Saturday, 5 August: Stony Brook Wildlife Sanctuary, Norfolk. Walk with Jackie Sones. Part of a series sponsored by the Broad Meadow Brook Wildlife Sanctuary. For more information call: 508-753-6087.

Saturday, 19 August: Connecticut River, Sunderland. 9:00 a.m. Canoe trip for late season species. Meet at the dirt parking lot off Rte. 116 (north side) at the intersection with River Road (west side of the Sunderland Bridge). Bring a canoe and lunch. Leader: Blair Nikula (508-432-6348)

Workshop on Dragonflies and Damselflies of Lower New England

26 and 27 May, 2000 — University of Connecticut

Leaders: Virginia Carpenter, Blair Nikula, Ken Soltesz, Mike Thomas, and Dave Wagner

Friday, May 26: The morning will emphasis adults and the afternoon naiads (or nymphs). Each three-hour session will include a general slide talk that reviews natural history, observation tips, collecting techniques, conservation issues, etc. Most of the time will be given over to a "lab identification session" of the southern New England fauna. Friday night, after dinner, Blair Nikula will give a slide talk on the odonate fauna of the Northeast.

Saturday, May 27: Weather permitting, field trips will be emphasized on the second day of the workshop. One group will visit the Connecticut River to look for shells and emerging adults. A second group will head east and visit a local population of Ringed Boghaunter (*Williamsonia lintneri*). If it rains we will have a shell fest. It will be a time to wrestle with all those shells that have been sitting in vials and plastics bags up on your desks for months (years). Bring your unknowns: adults, nymphs, shells, photographs, etc.

Cost: \$50.00. The registration fee will pay honorariums, defray costs of distributed literature (keys), purchase coffee and donuts, etc. (any profits will go to the University's *Center for Conservation and Biodiversity*). Details regarding the program, directions, etc., will be sent to registrants.

Please register early. The last workshop on dragonflies and damselflies filled quickly. Phone (860-486-2139) or e-mail David Wagner (dwagner@uconnvm.uconn.edu) if you have specific questions regarding the workshops. To register, send your check made out to the University of Connecticut, to: Burma Stelmak at the Department of Ecology and Evolutionary Biology, U-Box 3043, University of Connecticut, Storrs, CT 06268. Questions regarding registration can also be sent to Ms. Stelmak at sande@uconnvm.uconn.edu

2000 HUMBOLDT COURSES

Paul Brunelle's very popular week-long courses on odonates at the Humboldt Field Research Institute in Steuben, Maine are being offered again this year. Topics to be covered include collection and taxonomic study, life stages, morphology, behavior, distribution, and sampling. The first course, focusing on nymphs, will be held the week of 28 May – 3 June while the second, concentrating on adults, will be 2 – 8 July. The tuition for each course is \$435, with room and board available at an additional cost (we hear the food is great!). For more information contact:

Humboldt Field Research Institute P. O. Box 9, Steuben, ME 04680-0009 phone: 207-546-2821; fax: 207-546-3042 e-mail: humboldt@nemaine.com web site: http://maine.maine.edu/~eaglhill

MAINE ATLAS PROJECT

The Maine Dragonfly & Damselfly Survey enters its second season this year. The survey got off to a very successful start last year, with over 100 volunteers contributing 2,432 records, including three species new to the state: Dusky Dancer (Argia translata), Scarlet Bluet (Enallagma pictum), and Quebec Emerald (Somatochlora brevicincta), the latter a first for the U.S.! The Maine list now stands at 157 species. At the project's web site (http://mdds.umf. maine.edu/~odonata/) you can find a checklist of Maine odonates, flight season tables, publications relating to the survey, 1999 results, and more. If your travel plans include Maine this summer and you would like to contribute, contact the project coordinator Phillip deMaynadier, Maine Department of Inland Fisheries and Wildlife, 650 State Street, Bangor, ME 04401; (phone: 207-941-4239); e-mail: phillip.demaynadier@state.me.us.

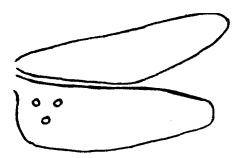
DRAGONFLIES ARE WHERE YOU FIND THEM

Richard S. Heil

In 1998, as a neophyte to odonate study, I began by exploring sites close to home. One of these places was the Mill Pond Conservation Area in West Newbury, Massachusetts. Initially burdened with a mindset that linked all dragonflies primarily with water, I headed for the pond. The pond, shallow, weedy, and eutrophic, proved, like many ponds in Essex County, to be unspectacular for odonate diversity, being dominated by large numbers of common libellulids of just a few species, such as Slaty Skimmer (*Libellula incesta*), Common Whitetail (*L. lydia*), and that omnipresent odeforce, the Blue Dasher (*Pachydiplax longipennis*).

Leaving the multitudes of skimmers behind, I focused my attention on the nearby upland grassy meadows and cornfield edges. It soon became apparent that these areas were consistently productive for evening swarms of interesting and challenging to net dragonflies that included several species of darners (*Aeshna spp.*), and numbers of Clamp-tipped Emeralds (*Somatochlora tenebrosa*). At the end of the 1998 season, buoyed by some initial success, I made a resolution that in 1999 I would initiate regular, more systematic surveys of these evening swarms, with the particular hope of finding additional species of *Aeshna* and *Somatochlora*.

Curiosity about how many of the individuals netted were recaptured that same evening or on later dates, plus questions about longevity of individuals in the swarms, prompted me in mid-July to initiate a marking survey in which I marked the base of both hind wings of all captures with patterns of dots from a silver marking pen. A different pattern was used on successive dates, with the exception of 11 and 22 July when a single dot was used on both dates.



Example of wing markings used at Mill Pond, 2 August 1999

With these objectives in mind, nine surveys were conducted in 1999 between 7 July and 24 August. Evenings were chosen that were sunny or mostly sunny and on the warm side, ranging from 78-85° F at the beginning of each survey. Surveys were conducted generally between 1730 and 2000 hours.

Summary of Observations and Captures by Genera

Aeshna: Moderate to large numbers of darners were present on every survey, but on evenings when large swarms were present only a small percentage of the total seen were captured. Often the majority of the larger swarms were higher flying and therefore more difficult to net. The Shadow Darner (A. umbrosa) was the most frequently caught of the five species of darners found, representing 50% of all Aeshna captures. I believe this result is somewhat skewed by the behavior of this species, which tends to fly low to the ground and along shrub and woodland edges, facilitating capture. I wonder how frequently, if at all, this species participates in the high-flying swarms.

Representing 29% of Aeshna captures, the Lancetipped Darner (A. constricta) was the second most commonly netted species. This darner seemed particularly attracted to a recently plowed field where fresh manure had been spread. The manure attracted a multitude of small flies upon which darners (and some Somatochloras) were clearly feeding, hunting two inches to two feet above the ground. In 1998, on 27 July, some sixty darners were observed engaging in this foraging strategy over recently spread manure and 100% of captures (16 individuals) in thirty minutes were all Lance-tipped Darners. Three additional species netted in 1999, each in small numbers, included Canada Darner (A. canadensis), Black-tipped Darner (A. tuberculifera), and Greenstriped Darner (A. verticalis).

Of 58 Aeshnas marked and released, only a single individual, a male Lance-tipped Darner on 2 August, was recaptured about an hour later within 50 meters of the point of release.

Anax: Small to moderate numbers of the large and ubiquitous Common Green Darner (*A. junius*) were present on all counts. Typically noted patrolling low over grassy meadows, they were occasionally present in the higher swarms of darners as well. Individuals also were often flushed from roosts in the tall grass.

Date: 7/7	7/24	7/28				Mill Pond Conservation Area, West Newbury, 1999						
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Black-tipped Darner * (A. tuberculifera)	4		8	5	4	23						
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			1			3						
(Pantala sp.)		2				40						
Black Saddlebags 15+ 12 6 7+		3				43						
(Tramea lacerata) Totals 135 95 88 87	67	113	58	107	43							

Epitheca: Only one species of baskettail, the Prince Baskettail (*E. princeps*) was observed during the survey period. This dragon forages over the meadows in a manner similar to *Anax* but generally flies higher, has not been seen to perch here, and is present in smaller numbers.

Somatochlora: Easily my favorite genera, a remarkable five species were netted, dominated by the handsome Clamp-tipped Emerald (*S. tenebrosa*), of which 83 individuals (22 males, 61 females),

representing 71% of all *Somatochlora* captures, were caught. A single evening high of twenty-four was netted on 7 July. Clearly this emerald, common throughout much of Essex County, is *the Somatochlora* of the Mill Pond Conservation Area. Clamptipped Emeralds engage in the gamut of foraging strategies here, from patrolling low over grassy meadows and the manure-laden plowed field to participating in the high flying swarms where they mix it up with the various species of darners.

Somatochloras, presumably mostly tenebrosa, were often observed to perch along the shrub border as well as high up in the adjacent deciduous woodland canopy. Indeed, a commonly observed behavior for these dragonflies is to swoop down from tree top height to begin a patrolling regimen over the adjacent meadows. Conversely, an errant swing with the net would often induce a full speed bee-line flight back to the nearby canopy.

Male Clamp-tipped Emeralds could occasionally be identified in flight, either with binoculars or even

with the naked eye, appearing smaller, shorter, and with a more narrow abdomen than the females, or either sex of the large emeralds in the area. On slower flying individuals the unique clamp-shaped anal appendages could also sometimes be discerned. Females, particularly those newly emerged, possess bright yellow markings on a shiny metallic green thorax, dissimilar from other large emeralds found here to date. These yellow thoracic spots often could be observed on the flying insect.

Thirty-seven Clamp-tipped Emeralds were marked and released, of which two were recaptured on later dates. A female marked with a single dot on either 11 or 22 July, was recaptured on 28 July, and another female, also marked on either 11 or 22 July, was netted again on 2 August, 11–22 days

later. Unfortunately, I didn't vary the marking pattern on the first two dates so I was unable to determine the precise date each was marked.

Previously considered to be rather rare in Essex County, twenty-four Williamson's Emeralds (*S. williamsoni*) were netted, representing 21% of *Somatochlora* captures, demonstrating that these emeralds are fairly common, at least locally. Of ten individuals marked there were no recaptures, and unlike the more common Clamp-tipped Emerald, males and females were captured in equal numbers. Williamson's Emeralds could sometimes be identified by their flight behavior, though certainly not always reliably. In general, they seemed to fly lower over the meadow, a bit slower than Clamp-

tipped Emeralds, and would often stop and hover just in front of the net. Of course behavior can vary greatly depending upon many factors such as location, habitat, and weather, so these observations are tentative.

Five individuals of the Mocha Emerald (*S. linearis*),

Five individuals of the Mocha Emerald (*S. linearis*), state-listed as 'special concern,' were captured. Several additional females seen (but not netted) in the latter half of July were believed to be this species. Females in flight were readily identified by the orange suffusion to their wings, much darker than on

any *tenebrosa* I've examined. They also appear somewhat larger and to possess thicker abdomens than flying *tenebrosa* females. These captures, in conjunction with small numbers caught at several other Essex County sites in 1999, suggests that this large southern emerald may be more common than previously realized, or is undergoing a range expansion and increase northward, which seems to be the case with many fauna.

The highlight of the survey was the discovery of small numbers of Coppery Emeralds (*S. georgiana*) present in the high-flying swarms in late July. Four males of this apparently rare and little-known emerald were collected on two dates, and at least eight others were believed seen. The latest sight record was on 24 August. It should be noted that a sight record of an emerald believed to

be *georgiana* was made here on 11 August 1998, but none were captured that season. These captures represent the northernmost U.S. records, but interestingly they are not the first for the county. Six Coppery Emeralds were taken at Willowdale State Forest in Ipswich on 18 August 1973 (C. Leahy), only ten miles SSE of the current survey site.

The Coppery Emerald is quite distinctive once familiarity is achieved, and can be picked out visually from an overhead swarm of *Somatochloras* by its small size, coppery-brown color, and by its very fast and erratic flight style. One caveat is to beware of the occasional meadowhawk (*Sympetrum spp.*) in the swarms, which may appear similarly colored, but whose flight style is slower and less



Mocha Emerald (*Somatochlora linearis*) male – Holliston, Massachusetts

erratic. Of course, *georgiana's* speed and tendency to remain up high make it among the most difficult of dragonflies to catch. Coppery Emeralds no doubt end up in the polyester less often than their populations might otherwise warrant. In other words, it likely is more widespread than we now realize.

There is no greater physical challenge than the rigorous pursuit of *Somatochloras*, be it sprinting through a waist high meadow, up hill, after a suspected Mocha Emerald that remains just an ovipositor ahead of your outstretched net, or performing vertical leaps and pirouettes that may (or may not) invite a comparison to Michael Jordan, in an attempt to bag a high-flying, zigzagging *georgiana* before it engages warp drive up and over the nearby forest canopy.

Pantala: Both species of gliders were recorded with the Spot-winged Glider (*P. hymenaea*) being common in early July but unrecorded here in August. The cosmopolitan Wandering Glider (*P. flavescens*), separable in flight by its bright yellow abdomen, was present in the swarms throughout the period in low to moderate numbers.

Tramea: The Black Saddlebags (*T. lacerata*) was found in greater than expected numbers and like the Spot-winged Glider, was most common in early July with a high count of 15+ on 7 July.

Objectives for Survey in 2000

In the upcoming 2000 ode season my goals at the Mill Pond Conservation Area will be to confirm, amend, or discard the tentative conclusions regarding species composition, population sizes, seasonality, behavior, and identification in flight as well as inthe-hand. I also intend to expand the survey dates to include June since it was clear in 1999 that the swarms were well in progress by early July. I hope to continue the marking project as well, and to increase the number of individuals marked in an attempt to learn more regarding recapture rates and longevity of individuals in the swarms. Obviously much is yet to be learned about the swarming behavior of these dragonflies.

THE NEXT ODE INVADERS?

Blair Nikula

One of the great thrills for any naturalist is finding a species previously unknown from a particular area, whether it be in his or her own backyard, or a new town, county, state, or other geographic or political region. Odonatists certainly share in this excitement, and odonates, being very mobile and little studied, provide many opportunities for new discoveries.

New state records have been rather frequent in southern New England over the past several years, and the potential for further additions remains high. A quick review shows that over the last few years of the 20th century, six species were added to the Massachusetts list and 23 to the Connecticut list, while in just the past two years, 14 new species have been found in Rhode Island! New county records number in the hundreds. While this pace will certainly slow, there are a number of species at our doorstep, awaiting detection. Here I wish to call attention to these in the hopes that observers will be on the lookout for them.

These potential pioneers all have been found in areas relatively nearby and fall into a couple of general categories. Some are quite clearly expanding their ranges in our direction, primarily from the south or west, while others have not shown any obvious range changes but are known from areas near enough to occur at least as occasional vagrants. Some have demonstrated a proclivity to wander — considerable distances in some cases — while others appear to be quite sedentary (and thus, perhaps, are less likely to show up here).

Here, then, are some species observers might be looking for, with some suggestions for where and when they might appear. Five of these have been recorded once or twice in southern New England recently and should be searched for elsewhere in the region. A few others have been recorded once or twice historically and may still occur here. Photographs of most of these species can be found on the *Ode News* web site at: www.capecod.net/~bnikula/images.htm.

Great Spreadwing (Archilestes grandis): This very large (2–2½") spreadwing has a distinctive, diagonal yellow stripe on the sides of the thorax. There are records from New York, New Jersey, and one purported record from Vermont, though the details of this latter report are unclear. Once known only from

the southwestern U.S., Great Spreadwings have now spread all the way to the Northeast. They fly late in the season and should be looked for in August and September along slow to moderate flowing streams. Western Connecticut and Massachusetts seem the most likely places to find this distinctive insect.

Blue-tipped Dancer (*Argia tibialis*): This southern dancer ranges as far north as New Jersey and has been found at least once in southeastern New York. They most commonly inhabit sluggish, often heavily shaded streams, and have a mid-summer flight period.

Rainbow Bluet (Enallagma antennatum): The males of this bluet are the most colorful of the genus and are easily recognized with their combination of blue, black, and green thorax, black abdomen, reddish face, and yellow legs. Females are much duller and far less easily identified. Rainbow Bluets inhabit a variety of wetlands and have spread eastward over the past several decades. They are now found in New York and New Jersey, and also occur along the Poultney River, a sluggish, muddy bottomed river in west-central Vermont. This species is likely to occur in western Massachusetts and, perhaps, Connecticut. The flight season is June and July.

Double-striped Bluet (Enallagma basidens): This

bluet, characterized by paired black "shoulder" stripes, is another species that has been spreading eastward from the Midwest and may soon colonize southern New England. It is established in New Jersey, has been found in New York, and one was recently collected in southwestern Connecticut. Habitats include a variety of lentic wetlands; they seem to have a tolerance for disturbed areas. Double-striped Bluets have a lengthy flight season extending from June into September (the Connecticut record was on 16 September).



Double-striped Bluet (*Enallagma basidens*) — male Mission, Texas

Blackwater Bluet (*Enallagma weewa*): This southern species occurs locally in New Jersey, recently was discovered by Steve Walter on Long Island, and turned up for the first time in New England in Rhode Island last summer. The male's

terminal appendages are very similar to the common Stream Bluet's

(*E. exsulans*) but the top of the thorax and abdomen are both very blackish, with purplish-blue sides of the thorax. Blackwater Bluets prefer sluggish, tannic streams, where they lurk in the shadows. They fly throughout the summer in New Jersey. Look for them in streams through white cedar swamps.

Southern Sprite (*Nehalennia integricollis*): Ginger Carpenter discovered a small population of this tiny southern damselfly in Rhode Island in 1998, and there are records from Long Island. Southern Sprites are very similar to the common Sedge Sprite (*N. irene*), but average even smaller (by about 4mm in overall length). Males can be distinguished, upon very close examination, by the coloration on the top of the eighth abdominal segment: entirely black on Southern Sprites; black but with a small blue patch distally on Sedge Sprites. They should be looked for in grassy, lentic habitats along the south coast, and have a mid-summer flight period.

Gray Petaltail (*Tachopteryx thoreyi*): There apparently is a Massachusetts record of this huge dragonfly from the mid-1800s, but the whereabouts of the specimen is unknown and the published account by Hagen is vague and gives no specific

location. However, the species is present in southeastern New York and northern New Jersey, and might well occur in the southern Berkshires. In the Northeast, Gray Petaltails inhabit hillside seepages or swampy areas, where the adults fly during June and early July.

Sable Clubtail (Gomphus rogersi): This Appalachian species has been found in southeastern New York. Though a bit of a long-shot, the New York site is less than 50 miles from the Connecticut border. Sable Clubtails prefer rocky streams and are on the wing in

June.

Pygmy Snaketail (*Ophiogomphus howei*): The type specimen of this small clubtail came from Amherst in central Massachusetts, and there may have been a

more recent record from that area, though we have no details on this latter report. Pygmy Snaketails, like others in their genus, have bright green bodies and faces, but can be distinguished by their small size and amber wash at the base of the wings. They are strictly riverine and fly in June and early July. There are recent records from Maine, including the Saco River in southwestern Maine (exuviae only), so the species may still exist on the Connecticut River or its tributaries.

Russet-tipped Clubtail (*Stylurus plagiatus*): This southern clubtail inhabits large, sandy or muddy bottomed rivers, often where there is some tidal fluctuation. It has been found in New Jersey and on the Hudson River in New York, though apparently is scarce in both states. If it occurs in this region, the southern reaches of the Connecticut River probably offer the best potential to find it. Like others in its genus, it has a late summer flight season.

Tiger Spiketail (*Cordulegaster erronea*): This large, handsome dragonfly was rediscovered in central Connecticut in 1999 (there are a couple of historical records from the southwestern part of the state). It also occurs in southeastern New York, where it inhabits seepage areas at the headwaters of very small, often temporary streams. Adults have a distinctive abdominal pattern and fly in mid-summer. The southern Berkshires and western Connecticut have potential for additional records.

Broad-bodied Shadowdragon (*Neurocordulia michaeli*): This newly described, crepuscular dragonfly has been found recently at a number of sites in Maine, including the Saco River in the southwestern corner of the state. To date, it is known only from Maine and New Brunswick. These dull, stocky dragons inhabit rocky streams, where the adults fly in June and early July. However, they are found for only 15-20 minutes near dusk. The exuviae provide the easiest means to confirm this elusive species' presence.

Lake Emerald (Somatochlora cingulata): There is one 1973 record of this large, northern emerald collected by Chris Leahy on the summit of Mt. Greylock in northwest Massachusetts. Lake Emeralds inhabit large lakes and the backwaters of rivers in northern New England, where the flight season extends from mid-June through August. The higher elevations in Massachusetts probably offer the

best potential for additional records.

Delicate Emerald (Somatochlora franklini): This bog-dwelling emerald is found in northern New England and the Adirondacks where they fly from mid-June into early August. Like the preceding species, the highlands of Massachusetts offer the best hope for this species. However, it is perhaps one of the least likely species on this list to occur in southern New England.

Four-spotted Pennant (*Brachymesia gravida*): This distinctive southern dragonfly is readily identified by its white stigmas and, in mature individuals, large brown to black spots in the outer portion of each wing. It is a coastal species and often found in brackish wetlands. Over the past decade or so, Four-spotted Pennants have been found progressively further north on the Atlantic Seaboard, with several recent records from southern New Jersey. Though still some distance from our shores, they're heading this way.

Yellow-sided Skimmer (*Libellula flavida*): This is another species of the southeast coastal plain, with populations as far north as central New Jersey and a few occurrences on Staten Island. There is rumored to be a record from Martha's Vineyard, though no details are available. Yellow-sided Skimmers are extensively yellow on the sides of the thorax (though in mature males this color is often obscured by pruinosity) with dark bars on the leading edges of the



Yellow-sided Skimmer (*Libellula flavida*) – mature male Great Swamp N.W.R., Virginia

wings. They should be looked for in acidic wetlands along the southern coast.

Black Meadowhawk (*Sympetrum danae*): This small, blackish, northern species is known from a number of sites in Maine as well as the Adirondacks of New York. Mature males are mostly blackish, while the females are dark with yellow markings on the abdomen. Black Meadowhawks appear to be rather sedentary, but have wandered to a couple of islands off the Maine coast, so conceivably could show up in northern Massachusetts.

Red-mantled Saddlebags (*Tramea onusta*): This brilliant red, western dragonfly, like its relatives, wanders widely and has been recorded several times as far northeast as New Jersey. It is most likely among migratory swarms along the southern New England coast, but is very similar in appearance to the common Carolina Saddlebags (*T. carolina*), so confirmation will require a captured individual.

Although these species seemed to be some of the most likely to appear (or re-appear) in southern New England, based upon the proximity of recent occurrences, they certainly are not the only possibilities. Absent from the above list are some potential long-distance vagrants. For example, the Striped Glider (*Tramea calverti*), which has been found twice recently in Massachusetts, is a tropical species that normally ranges north only to the extreme southern U.S. Gulf Coast. However, they are strong fliers with an apparently well-developed proclivity to wander great distances and have occurred in the Northeast on a number of occasions. Likewise, the Vermilion Glider (*T. abdominalis*), another tropical species, was collected on Nantucket in the 1800s. Two southeastern U.S. species, the Hyacinth Glider (Miathyria marcella) and the Regal Darner (*Coryphaeschna ingens*), are also strong fliers that have wandered as far north as Virginia, and could conceivably blow into New England someday.

Clearly, there is still plenty of potential for exciting new discoveries. So get out and look — sooner or later your efforts will be rewarded!



FLORIDA TRAVELS

Bob Muller

My first trip to Florida to look for odes was a great experience. From 6 April to 14 May 1999, I recorded 51 of the 86 dragonflies and 24 of the 44 damselflies known from the state. I'm certain my results would have been even greater later in the year.

Using Sid Dunkle's books on the dragonflies and damselflies of Florida, I planned an early season trip that took me across the Panhandle and south to the southern end of Lake Okeechobee, covering 4,388 miles within the state.

Many species which are reported to be common and to fly all year in Florida, proved to be very scarce or absent during the time I was there, while I found some uncommon species to be very common at certain locations. The lack of many species was likely due to the extreme drought conditions; hundreds of small ponds, brooks, and creeks were totally dried up and had been for a period of time.

One species that appeared to be faring well, was the Comet Darner (*Anax longipes*), which I saw on most rivers, lakes, and ponds south of Gainesville. They were impossible to catch as they flew over rivers and lakes, but presented no problem on shallow, grassfilled ponds. At one small, one-acre pond, I netted

five individuals in a four-hour period, releasing all but one prior to leaving the area. At this site, it was interesting to note that one male would dominate the pond, chasing off every newcomer. However, once I caught the dominant male, another would appear within 15 minutes and fly the same route. This cycle repeated itself several times, confirming the fact that at least several individuals were involved. I concluded that this species is actually fairly common at shallow, grassy ponds in Marion and Lake counties.

My other most interesting finds were Blue-faced Darner (*Coryphaeschna adnexa*), Regal Darner (*C. ingens*), Royal River Cruiser (*Macromia taeniolata*), "Georgia" River Cruiser (*M. illinoiensis georgiana*), Purple Skimmer (*Libellula jesseana*), Seepage Dancers (*Argia bipunctulata*), a Double-striped Bluet (*Enallagma basidens*), along with Cherry (*E. concisum*), Attenuated (*E. daeckii*), Sandhill (*E. davisi*), and Pale (*E. pallidum*) bluets. My greatest prize were the Blackwater Clubtails (*Gomphus dilatatus*) I found on the Santa Fe River (thanks to Mike Thomas for advising me of this site).

All in all, I had a great trip, despite the fact that my wife fractured her ankle at the Florida Welcome Center upon our arrival — the first day was spent at the hospital! Later in the trip, while pursuing a neat looking ode, I ran my eight-foot rubber boat right on top of a 12-foot alligator! Fortunately, he apparently had eaten well that morning and allowed me to toss the electric motor in reverse and back away. After this little encounter, my wife was not too thrilled about joining me in my little rubber boat! Nonetheless, it was a fun trip.

ODE NEWS WEB SITE UPDATED

Over the course of the winter, we made many updates to the *Ode News* web site. Perhaps of greatest interest to local readers, we have added a county checklist of Massachusetts odonates. This checklist was originally compiled by Chris Leahy and has been regularly updated by us, with input from other active observers across the state. With Jim MacDougall's assistance, we hope soon to add county maps for each species.

We have added a number of new images to the Massachusetts list, and now have photos of all but three of the species known from the state, including a substantial percentage of females! The bibliography of New England odonatology has also been updated, and now lists about 190 publications on the odonates of the region.

Our links page contains well over 200 active links to web sites from around the world. Of particular interest to local readers is a new sites in Maine (the Maine Dragonfly and Damselfly Survey — see page 3).

There has been a proliferation in odonate images available online over the past year, and we have added hundreds of links to our photo references pages, resulting in the addition of dozens of new species from across North America, most notably many superb photos taken by Bob Behrstock in the southwestern U.S. These pages now contain links to over 1200 photos, representing about 355 species, or 80% of the total known from North America! We are eager to fill in the blanks and welcome contributions from anyone who has photos of any of the missing species (or sexes).

When you get a chance, check out some of these resources — and let us know if you notice any errors, or have improvements to suggest. The address is:

www.capecod.net/~bnikula/odenews.htm

NEW T-SHIRTS

The Vernal Pool Association has produced a number of handsome, high-quality T-shirts, and they have just added a very attractive new one featuring a Common Baskettail (*Epitheca cynosura*). Adult sizes (M, L, or XL) are available in dark green or brown, and child size (L only) in red. The price is \$15, or 3 for \$40, plus \$3 postage. To order send a check to: RMHS - Vernal Pool Association, 62 Oakland Road, Reading, MA 01867; check payable to: "RMHS – VPA." To learn more about the Vernal Pool Association and to view the shirts and books they sell, visit their web site at:

www.vernalpool.org

NEW CALIFORNIA GUIDE

Another new dragonfly guide, *Common Dragonflies of California*, *A Beginner's Pocket Guide* by Kathy Biggs is scheduled for publication on May 10th. This 96-page book covers 77 species of dragonflies and damselflies with 117 color photographs and scans. Also included is a checklist of California species, as well as information on identification, habitats, flight periods, and behavior. The book measures 5.75" x 4.5" for easy portability in the field. The price is \$9.95 plus shipping (\$2.00 for first book; \$3.00 for two; \$4.00 for three or more).

To order, send a check to: Azalea Creek Publishing, Common Dragonflies of California, 308 Bloomfield Road, Sebastopol, CA 95472. For more information, visit Kathy Biggs' web site (which also has a great deal of information on California odonates) at:

www.sonic.net/~bigsnest/Pond/Lists/azaleaforth.html)

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