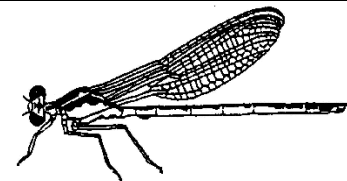


Ode News



An Occasional Newsletter about Dragonflies and Damselflies in Southern New England

Volume XII, Number 2

ISSN 1084-9750

November 2005

Greetings! Once again, the fall issue of *Ode News* is late appearing, though by now readers probably expect this. Because the November issue focuses on the preceding field season, it seems preferable to take our time and gather as much data as possible in order to compile a reasonably complete synopsis, rather than rushing to press before the holidays.

The 2005 field season seems to have been one of the quietest in the past decade or so. Miserably cold wet weather in May, particularly the last half of the month, put a damper on the start of the season, delaying the emergence of many species, and seems likely to have impacted population levels of many “spring” fliers. Despite generally good weather the rest of the summer, activity levels seemed unimpressive.

Organized surveys in Massachusetts included an effort by Michael Veit to survey breeding habitat for three species of striped emeralds (*Somatochlora*); Michael summarizes his findings on page 7. Dave Small and the Millers River Environmental Center continued Operation Rubyspot for the second year, expanding it to include the three species of hanging clubtails (genus *Stylurus*) known from Massachusetts. Dave McLain and Fred Morrison continued their work on the Connecticut River (see *Ode News*, Vol. 8, No. 2), but extremely high water levels and the attendant strong currents constrained their efforts. Meanwhile, Fred SaintOurs conducted surveys of odonates on MassAudubon properties throughout the state.

In Rhode Island, where the atlas project ended in 2004, field work this year tapered off considerably, but didn’t preclude the discovery of yet another new state record and several new county records. Ginger Brown summarizes these finds on page 6. We have yet to hear from Connecticut, but hope to have a summary of their field season in the next issue of *Ode News*.



Elfin Skimmer (*Nannothemis bella*) — mating pair
Osterville, MA — July 2005

This delightful denizen of bogs and seeps is one of the smallest dragonflies in the world, the adults averaging only about an inch in length — smaller than many damselflies!

© Blair Nikula

This year’s national meeting of the Dragonfly Society of the Americas (DSA) will take place in Kentucky the weekend of 9–12 June; see page 9 for details.

The Northeast DSA meeting will be in the White Mountains of New Hampshire the weekend of 22–25 June and is being organized by Pam Hunt. Preliminary details can be found on page 9, with more info to follow in the May issue. It should be a great time in

a beautiful area and we hope to see you there!

Inside this Issue:

- 2005 Massachusetts Highlights 2**
- 2005 Rhode Island Highlights..... 6**
- Prospecting for Emeralds..... 7**
- Autumn Meadowhawk Flights 10**
- Damselflies of the North Woods 11**

2005 MASSACHUSETTS HIGHLIGHTS

Despite favorable weather throughout much of the summer, it seems to have been one of the quietest field seasons in many years, at least based upon the reports posted to the Northeast Odonates listserv and/or this publication. To what extent this represents actual odonate population levels, observer activity, observers becoming blasé about reporting their finds, or some combination of the three is difficult to determine.

The weather in April was quite favorable with above normal temperatures and near average rainfall, and the season began pretty much on schedule with the usual scattered appearances of Common Green Darners arriving from the south by the end of the month. Actually, the first ode reported in Massachusetts was a Hudsonian Whiteface (*Leucorrhinia hudsonica*) in Groton on 21 April, followed by three Ringed Boghaunters (*Williamsonia lintneri*) — the only reported this year — in the same town the following day. However, the weather in May turned just plain miserable, with temperatures averaging 5-6° F below normal and, although rainfall totals were only a bit above average, there was measurable precipitation on 19 days and sunshine was only 34% of possible in the Boston area. This, of course, essentially shut down odonate emergences for much of the month and likely impacted populations of many (if not all) of the early fliers.

Torrential rains fell just to our north in Vermont and New Hampshire during the late spring, and the resulting runoff impacted streams and rivers throughout central and western portions of the Bay State, raising water levels to flood stage along such water bodies as the Connecticut and Millers rivers, making them largely inaccessible during the first half of the season. Water levels of ponds and lakes at the beginning of the season were generally high, but not extreme. The weather improved dramatically in early June and the entire summer and early fall was characterized by above average temperatures with below normal precipitation. By mid summer, water levels had pretty much returned to normal everywhere.

State-listed species that were not reported in 2005 included: Tule Bluet (*Enallagma carunculatum*)[SC], Subarctic Darner (*Aeshna subarctica*)[T], Harpoon Clubtail (*Gomphus desertus*)[E], Rapids Clubtail

(*Gomphus quadricolor*)[T], Riffle Snaketail (*Ophiogomphus carolus*)[T], Coppery Emerald (*Somatochlora georgiana*)[E], and Kennedy's Emerald (*Somatochlora kennedyi*)[E]. Among the “missing” watch-listed species were Dusky Dancer (*Argia translata*), Taiga Bluet (*Coenagrion resolutum*), Beaverpond Clubtail (*Gomphus borealis*), and Northern Pygmy Clubtail (*Lanthus parvulus*).

Initialed Observers: Earle Baldwin, Bob Bowker, Mark Fairbrother, Chris Gentes, Nancy Goodman, Rick Heil, Lynn Harper, Allen Keith, Rene Laubach, Jim MacDougall, Tom Murray, Blair Nikula, Matt Pelikan, Sharon Riley, Fred SaintOurs, Ken Shea, Dave Small, Jeremiah Trimble, Peter Trimble, Michael Veit, Steve Walter. Letters in brackets following the species name indicate Massachusetts state-listing designations: [E] = Endangered; [T] = Threatened; [SC] = Special Concern; [WL] = Watch Listed.

Sparkling Jewelwing (*Calopteryx dimidiata*)[WL]: Three adults were on the Squannacook River in West Groton on 23 July (BN *et al.*).

American Rubyspot (*Hetaerina americana*)[WL]: This stunning damsel was again numerous on the Millers River from Erving to Athol, with the first reported on 13 August (MF) and one male still on the wing in Athol on 11 October (LH, EB). Others were on the Westfield River in West Springfield on 10 August (NG), Huntington on 18 August, and Russell on 18 August (LH *et al.*); and on the Wading River in Norton on 16 August (J.Carlino).

Lyre-tipped Spreadwing (*Lestes unguiculatus*)[WL]: Four individuals in Bourne on 28 July (PT) constituted the only report of this enigmatic species.

Blue-fronted Dancer (*Argia apicalis*)[WL]: Several seen and one collected along the Taunton River in several towns in Bristol County on 4 August were the only individuals of this species reported, but provided an overdue first for that county (DS, LH).

Attenuated Bluet (*Enallagma daeckii*)[SC]: A “substantial number” of this lanky bluet was present

on 15 July at the Wellfleet site discovered last year (KS), but the species was unreported otherwise.

Turquoise Bluet (*Enallagma divagans*): Hundreds of this stream-dwelling damsel along the Assonet River in Freetown on 26 June furnished an overdue first for Bristol County (FSO).

New England Bluet (*Enallagma laterale*)[SC]: The only reports were of single males captured in New Salem on 13 June (LH, J. Lisk) and in Yarmouth on 23 June (BN, SR); presumably others were found but not reported.

Little Bluet (*Enallagma minusculum*)[WL]: One male was captured in Brewster on 18 June (BN, SR), again the only report this season.

Scarlet Bluet (*Enallagma pictum*)[T]: Six adults, including a pair in the wheel, were in Osterville on 17 July (BN, SR).

Pine Barrens Bluet (*Enallagma recurvatum*)[T]: Ten males were in Brewster on 18 June (BN, SR).

Lake Darner (*Aeshna eremita*): An ovipositing female photographed at Buckley Dunton Lake in Becket on 14 August (RL), provided a very rare and surprisingly far south breeding record for this large, northern darner. Another female was captured on Mt. Watatic in Ashburnham on 16 July (BN *et al.*).



Lake Darner (*Aeshna eremita*) — ovipositing female
Buckley Dunton Lake, Becket, MA — August 2005

© Rene Laubach

Spatterdock Darner (*Aeshna mutata*)[SC]: Two males were in Petersham on 21 June (MV), one male

in Ashby on 23 June (MV), a female in Ashburnham on 24 June (MV), from one to six individuals at three sites in Bourne on 25 June (PT), and about 20 adults in Monson on 4 July (BN *et al.*).

Comet Darner (*Anax longipes*)[SC]: A total of three individuals were at two sites in Bourne on 25 June, a single was at a third site in Bourne on 20 July, and another was at a fourth site in Bourne on 18 August (PT). At least two males and an ovipositing female were seen in Monson on 4 July (BN, SR).

Ocellated Darner (*Boyeria grafiana*)[SC]: One emerging adult and an exuvia were found on the Greenfield River in Greenfield on 10 July (LH, DS), and an adult was at a small, cold stream in Worthington on 3 August (FSO).

Fawn Darner (*Boyeria vinosa*): One photographed in-hand on Martha's Vineyard on 2 September (MP *et al.*) provided a first for Dukes County.

Taper-tailed Darner (*Gomphaeschna antilope*): Two individuals captured over railroad tracks on the Freetown-Lakeville border on 26 June, one on each side of the town (and county) line, provided firsts for both Bristol and Plymouth counties (FSO).

Swamp Darner (*Epiaeschna heros*): Three reports, all presumably migrants, were of a single fly-by on South Beach in Chatham on 12 June (BN), a perched male caught by hand in Gloucester on 7 July (RH), and two on North Monomoy Island in Chatham on 3 September (BN, JT). On Martha's Vineyard, one was captured at Lambert's Cove on 20 August (MP *et al.*) and several other large darners thought to be this species were seen through mid-September (AK).

Cyrano Darner (*Nasiaeschna pentacantha*): Four individuals in Freetown on 26 June were the first for Bristol County (FSO). Others were at an unnamed stream in Ashburnham on 23 June (MV), at Bear Meadow Brook in Ashburnham on 24 June (MV), and at Bailey Brook in Winchendon on 4 July (MV).

Spine-Crowned Clubtail (*Gomphus abbreviatus*) [E]: A total of 70 exuviae were found along the Connecticut River on 5 and 11 June at three sites, two in Hatfield and one in Hadley (CG).

Midland Clubtail (*Gomphus fraternus*)[E]: One male of this enigmatic clubtail was photographed in a

clearing near the Connecticut River in Northampton on 21 June (SW).



© Steve Walter

Midland Clubtail (*Gomphus fraternus*) - male
Northampton, MA — 21 June 2005

Cobra Clubtail (*Gomphus vastus*)[SC]: A total of 76 exuviae were found at sites in Hatfield and Hadley on 5 and 11 June (CG). Five males were captured on the Connecticut River in Sunderland on 3 July (BN *et al.*), while another 30 unidentified clubtails patrolling over the river the same day were likely this species.

Skillet Clubtail (*Gomphus ventricosus*)[SC]: One adult was in Hadley on 19 June (CG), at least three were found (two photographed) at a clearing near the Connecticut River in Northampton on 21 June (SW), and one male was captured on the Connecticut River in Sunderland/Deerfield on 3 July (BN *et al.*).



© Steve Walter

Skillet Clubtail (*Gomphus ventricosus*) - male
Northampton, MA — 21 June 2005

Pygmy Clubtail species? (*Lanthus sp.?*)[WL]: A total of 37 *Lanthus* exuviae found on Adams Brook in Shutesbury 4–19 June (CG) were unidentified to species.

Brook Snaketail (*Ophiogomphus aspersus*)[SC]: One larva on the Scantic River in Hampden on 5 August (LH) provided a first Hampden County record. The only other reports were of several males captured on the Squannacook River in Townsend on 20 June (MV), and an exuvia found on the Millers River in Athol on 3 September (LH).

Maine Snaketail (*Ophiogomphus mainensis*)[WL]: Two exuviae were found on the East Branch Swift River in Petersham on 2 June (LH, DS).

Rusty Snaketail (*Ophiogomphus rupinsulensis*) [WL]: One male was captured on the Connecticut River in Sunderland on 3 July (NG *et al.*), while one exuvia was found on the Connecticut River in Hatfield on 5 June (CG), two exuviae were on the same river in Hadley on 11 June (CG), and a single exuvia was found on the Millers River in Athol on 3 September (LH).

Riverine Clubtail (*Stylurus amnicola*)[E]: As usual, all of the few reports were from the Connecticut River and vicinity, including single adults in Gill on 4 July (TM) and Hadley on 20 July (NG), two emerging adults plus two additional exuviae on the river in Montague on 13 July (LH, NG), a teneral adult in North Hadley on 16 July (NG, FM), 17 exuviae in Longmeadow on 22 July (LH, EB), and an emerging individual in Hadley on 3 August (NG).

Zebra Clubtail (*Stylurus scudderii*)[E]: A single exuvia was on the Connecticut River in Montague on 13 July (LH, NG), a larva was on the East Branch Westfield River in Huntington on 18 August (LH *et al.*), one adult and a larva were found on the West Branch Westfield River in Huntington on 18 August, additional larvae were on the Westfield River in Huntington and Russell on the same date (LH *et al.*), two larvae were on the Millers River in Orange on 20 August (LH *et al.*), and an adult male plus 15 larvae were on the Squannacook River in Townsend on 22 August (LH, NG).

Arrow Clubtail (*Stylurus spiniceps*)[T]: This species was present as usual on the Connecticut River and the Millers River from early July through

early September, and three larvae were found on the Westfield River in Russell on 18 August (LH *et al.*)

Twin-spotted Spiketail (*Cordulegaster maculata*): One adult in Freetown on 26 June provided an overdue first Bristol County record (FSO).

Arrowhead Spiketail (*Cordulegaster obliqua*) [WL]: Bob Bowker has been keeping tabs on this species at a small, muddy, thickly-wooded stream in Sherborn and recorded four patrolling males and an ovipositing female there on 26 June; the species also was seen in Andover in late June (JM).

Petite Emerald (*Dorocordulia lepida*) [WL]: From one to five individuals were reported from Brewster, Holliston, Groton, Monson, Petersham, and two sites in Ashburnham, spanning the dates 18 June – 23 July (BN *et al.*).

Umber Shadowdragon (*Neurocordulia obsoleta*) [SC]: The only report was from Fred SaintOurs who noted emergence on 9 June at a site in Hanover he has been monitoring for the past few years; over 100 exuviae were there a few days later.

Stygian Shadowdragon (*Neurocordulia yamaskanensis*) [SC]: One exuvia was found on the Connecticut River in Northfield on 13 July (LH, NG). In addition, a total of 43 *Neurocordulia* exuviae, unidentified to species, were on the same river in Hatfield on 11 June and in Deerfield on 20 June (CG).

Ski-tailed Emerald (*Somatochlora elongata*) [SC]: One female was captured in Petersham on 2 July (BN, SR); a male was caught in Ashburnham on 16 July at a small stream where several nymphs were found on 16 and 24 June (MV *et al.*); two nymphs were collected at another site in Ashburnham on 23 June (MV); a dozen adults, including an ovipositing female, were netted at a site in Winchendon on three dates: 27 June – 4 July (MV) [see page 7]; singles were captured in Worthington on 3 August and in Plainfield on 4 August (FSO); and three males and an ovipositing female were captured in Florida on 6 August (BN *et al.*).

Forcipate Emerald (*Somatochlora forcipata*) [SC]: Single males were netted at a previously known site in Ashburnham on 27 June and 2 July (MV) [see page 7].

Incurvate Emerald (*Somatochlora incurvata*) [T]: Two males patrolling the bog edge were netted at a previously known site in Ashburnham on 21 July (MV), while single males were netted at a new site in Ashburnham on 20 and 21 July (MV) [see page 7]; the latter site is only the fourth known in the state. Three of the four are in Ashburnham and one of these, a small fen, is now inundated as a result of beaver activity.

Mocha Emerald (*Somatochlora linearis*) [SC]: One was in Belmont on 13 July (FSO), two females were captured in Holliston on 16 July (BN, SR), and several individuals were among an evening swarm of darners and emeralds in Lakeville on 2 August (FSO).

Ebony Boghaunter (*Williamsonia fletcheri*) [E]: Two males and a female were seen in Ashburnham on 4 June (MV); the males chased each other around a small pool in the bog while the female perched nearby and watched.

Ringed Boghaunter (*Williamsonia lintneri*) [E]: Three teneral individuals were seen, one caught by hand, at a small, buttonbush-ringed fen in Groton (MV).

Martha's Pennant (*Celithemis martha*) [WL]: One was in Bourne on 4 August (PT).

Great Blue Skimmer (*Libellula vibrans*): At least four males and an ovipositing female were in Dartmouth on 10 September (TM); the males were patrolling over small puddles and the female was ovipositing in one of the puddles. On Martha's Vineyard, 2-3 males were present at a small pond in West Tisbury 10-14 September, with a single still present there on 27 September (AK).

Elfin Skimmer (*Nannothemis bella*) [WL]: As many as 30 adults were in Osterville 19 June – 17 July (BN *et al.*), at the only currently known site on Cape Cod.

Migratory Movements: Movements of migratory dragonflies were apparently almost non-existent in 2005. On 24 July a few, apparently northbound, dragonflies were seen on South Beach in Chatham. Although the number of individuals was small, no less than eight species were identified (BN *et al.*). In the same area on 3 September, five species of migrants included 55 Common Green Darners, two Swamp Darners, three Wandering Gliders, seven Carolina Saddlebags, and two Black Saddlebags (BN, JT).

2005 RHODE ISLAND HIGHLIGHTS

Virginia Brown

With the Rhode Island Odonata Atlas project completed, the amount of field time invested in dragonfly and damselfly surveys in Rhode Island in 2005 was dramatically reduced. Nevertheless, a number of gaps in both township and county data were filled, and one species never before reported in the state was observed. Additionally, two southern dragonflies, which were present in the state in large numbers in 2004, were also widespread and abundant in 2005. Fifty-eight new township records were generated, most of which were common to abundant species that had been overlooked in these townships prior to 2005. The four new county records were of less common species.

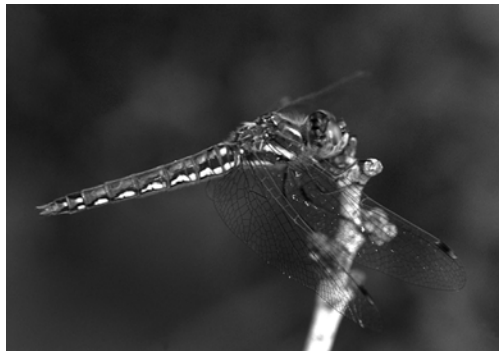
The Variegated Meadowhawk (*Sympetrum corruptum*), a migrant from the western United States, was observed in Rhode Island for the first time in 2005. Unfortunately, attempts to collect a specimen were unsuccessful due to the extreme wariness of this individual, an adult male seen on a beach in Warren where it perched only briefly before flying due west up and over a large expanse of Narragansett Bay, much to the dismay of the observers.

A single male Lyre-tipped Spreadwing (*Lestes unguiculatus*) was collected in Middletown at a very small temporary pond dominated by cattail, sedges, and rushes. This discovery represents only the third known location for this rare damselfly in the state and the first for Newport County. At two of these three locations, just one individual was observed.

The Coppery Emerald (*Somatochlora georgiana*) continued to expand its local range, this year jumping Narragansett Bay into Little Compton, in Newport County, where large numbers were observed on a very small, forested stream. Several females were seen ovipositing in the stream, which was reduced to small pools of standing water due to extremely dry conditions. This species is now documented from four of the five Rhode Island counties.

A third county record worth noting is the discovery of Arrowhead Spiketails (*Cordulegaster obliqua*) on a small stream in Warwick, Kent County. This species is rare in the state, with only five known populations. Early in the flight season, a teneral male was seen sunning along a power line right-of-way adjacent to Route 95. A return visit revealed a sizable breeding population, with ovipositing females and patrolling males present. The stream is only a foot or two wide, and is surrounded by suburban Warwick and the development along the Route 95 corridor.

Continued inventory along the Blackstone River in Rhode Island produced new data from urban areas, including a record of the American Rubyspot (*Hetaerina americana*) in the city of Central Falls, just a couple of miles upstream from the Providence city line. The tolerance of this lovely damselfly to disturbed conditions is well documented in Rhode Island, where it has been found thriving in the middle and/or lower reaches of most of our urban rivers. Other odonates found with the rubyspot on the



Variegated Meadowhawk (*Sympetrum corruptum*) — female
Falcon Dam, TX — April, 1997

© Blair Nikula

Central Falls portion of the Blackstone River included all of our resident Dancers (Blue-fronted [*Argia apicalis*], Variable [*A. fumipennis*], Powdered [*A. moesta*], and Dusky [*A. translata*]), Stream Bluet (*Enallagma exsulans*), Dragonhunter (*Hagenius brevistylus*), and Black-shouldered Spinylegs (*Dromogomphus spinosus*).

Another highlight of the 2005 odonate season in Rhode Island was the return of large numbers of Bar-winged Skimmers (*Libellula axilena*) and Great Blue Skimmers (*Libellula vibrans*). What is interesting is that many of these animals were found at the same ponds, streams, and wetlands where females were observed ovipositing in 2004. This begs the question of whether these southern species were actually able to over-winter in Rhode Island in 2004, making them residents in our state. Searches for exuviae in 2006 could answer this question, but it is likely that at least some of the individuals observed this year were the progeny of adults that moved into the area in 2004.

PROSPECTING FOR EMERALDS

Michael F. Veit

During the summer of 2005, I embarked on a project with the aid of a Massachusetts Natural Heritage and Endangered Species Program (MNH&ESP) Small Research Contract to investigate specific breeding habitat for three state-listed species of emeralds (*Somatochlora*), the Forcipate Emerald (*S. forcipata*, Special Concern), Incurvate Emerald (*S. incurvata*, Threatened), and Ski-tailed Emerald (*S. elongata*, Special Concern) in Massachusetts. Records for these species in the state are few, and little breeding behavior has been associated with them. MNH&ESP is interested in breeding behavior as the Program uses this type of data to inform protection of species habitat. Since the few records that exist for Forcipate and Incurvate emeralds are mostly from two large peatland complexes in Ashburnham (Worcester County), I surveyed for these two species at these two locations. Surveys for Ski-tailed Emerald were conducted at streams in Ashburnham and surrounding townships.

Methods

Surveys encompassed 14 field days between 29 May and 21 July. At the peatland sites early in the season, I concentrated on searching for exuviae among the bog vegetation in the vicinity of standing water as well as sampling for nymphs in areas containing standing water. I surveyed for Ski-tailed Emerald in stream sections identified by using topographic maps, a Delorme atlas, and by searching for stream/road crossings by car. I surveyed at road crossings both upstream and downstream for at least 50m in each direction, and often further where favorable conditions existed. I used a ¼ inch hardware cloth net to sample the substrate in the peatlands and stream sections, and searched for exuviae while walking slowly through the peatlands and making visual inspections at a diversity of aquatic habitats on the peatland surface, within the emergent vegetation, and along the margin. As the season progressed into the probable adult flight period (late June through July), I spent less time searching for nymphs and exuviae and more

searching for flying adults, especially those displaying breeding behavior (*i.e.*, territoriality or mate searching by males, ovipositing females, or mating pairs).

I collected samples of late instar *Somatochlora* nymphs and then transported them alive to rearing tanks where an attempt was made to raise them through eclosion.

Results

Searching for exuviae and nymphs in the peatlands proved to be fruitless. In many hours spent surveying the peatlands for immature stages I found not a single *Somatochlora* exuvia or nymph.

However, on two occasions individual teneral *Somatochloras*, presumably on their maiden flights, were flushed out of a peatland from some origin near my track and landed on vegetation out of reach of my net. With the aid of binoculars I was able to see their abdominal appendages clearly enough to make identifications. In both instances, I searched extensively for their exuviae, but without success.

Adult male Forcipate Emeralds were encountered at one bog in Ashburnham on 27 June and 20 July. Adult male Incurvate Emeralds were encountered at the same bog on 20 and 21 July, the first records of the species at this site, and at a second bog on 21 July. In all instances when mature adult males of either species were encountered within a fen, they were patrolling along the forested margins, most often in the vicinity of what would be considered the moat or lagg.



Ski-tailed Emerald (*Somatochlora elongata*) — female
Petersham, MA — July, 2005

© Blair Nikula

Although over fifteen stream sections were surveyed, the nymphs of Ski-tailed Emerald were found at only two locations, both small streams in Ashburnham. An adult male was found patrolling at one of the sites on 16 July. These two streams had several features in

common. Both were small (1-2 m wide) and partially shaded, with a slow but obvious flow of tannin-stained water, and a primarily mud/detrital substrate. The Ski-tailed nymphs were found in coarse detrital material consisting mostly of small sticks, twigs, and pieces of dead leaf (larger than a half inch in length) that had collected in eddies above a soft mud bottom. No *Somatochlora* nymphs were found in streams or sections of streams that had flow rates fast enough to result in a bottom substrate with a particle size larger than mud or sand.

Several adult Ski-tailed Emeralds were netted along a wooded dirt road near a small stream in Winchendon on 27 June and 2 July. While surveying this stream

on a third visit on 4 July, I watched a female Ski-tailed oviposit 56 times without interruption on a moss-covered rock along the shaded margin of a partially impounded, slow-flowing section. I also caught one patrolling male and saw two others along this section after I had netted the female.

See Table 1 for a summary of all records of state-listed *Somatochlora* recorded during this project.

Conclusions

It is risky to draw many conclusions about the specific breeding habitat of the two peatland species from so few observations. One teneral individual, as well as all records of patrolling adult males, were

Table 1 - Summary of State-Listed *Somatochlora* Records

Species	Date	Site	Notes
Ski-tailed Emerald (<i>S. elongata</i>)	6/16/05	Ashburnham, Site 1	One mature female nymph collected and reared. Several smaller, immature nymphs also collected.
	6/23/05	Ashburnham, Site 2	Two mature female nymphs collected, one reared.
	6/24/05	Ashburnham, Site 1	Several small immature nymphs found probably <i>S. elongata</i>
	6/27/05	Winchendon, Site 1	Four males and one female netted at various points along a dirt road
	7/16/05	Ashburnham, Site 1	One male observed patrolling
	7/2/05	Winchendon, Site 1	Three males and two females netted at various points along a dirt road
	7/4/05	Winchendon, Site 1	Ovipositing female netted and at least three patrolling males (one netted) on ponded section of stream
Forcipate/Incurvate Emerald (<i>S. forcipata</i> / <i>incurvata</i>)	6/24/05	Ashburnham, Site 3	Teneral female, probably on her maiden flight, flushed from mat.
Forcipate Emerald (<i>S. forcipata</i>)	6/27/05	Ashburnham, Site 4	Young male netted on RR bed; probable teneral male observed on maiden flight along bog margin
	7/20/05	Ashburnham, Site 4	One male netted, and more sighted patrolling bog margin
Incurvate Emerald (<i>S. incurvata</i>)	7/20/05	Ashburnham, Site 4	One male netted, and more sighted patrolling bog margin
	7/21/05	Ashburnham, Site 3	Two males netted while patrolling bog margin
	7/21/05	Ashburnham, Site 4	One male netted while patrolling bog margin

along the margin of the peatlands near what could be characterized as the moat region. Since male odonates generally patrol for females in the vicinity of female oviposition sites, it is likely that breeding occurs in the pools and wet sphagnum along the margins. This information might be used to locate other populations of Incurvate and Forcipate emeralds in Massachusetts.

Future surveys of this type also might be more efficient if efforts were concentrated on searching for ovipositing females during mid to late July. Searching for exuviae may eventually prove more fruitful if oviposition habit can be characterized, or perhaps by concentrating searches in the moat/margin areas where the teneral and patrolling males were encountered during this investigation.

The characteristics of the two streams where Ski-tailed Emerald nymphs were found, as well as the location of the ovipositing female in this study, are consistent with that described in the literature for other regions. This general type of stream habitat is not uncommon in Massachusetts, especially in the central and western parts of the state. Most adult records of Ski-tailed Emeralds are from locations where individuals are collected while feeding, frequently in swarms with other species of emeralds and darners. These types of records, although useful, are not as elucidating or as applicable in terms of habitat preservation as records that document the presence of immature stages or breeding behavior. Future surveys for Ski-tailed Emerald might be more useful by concentrating effort along potential breeding streams.

2006 NORTHEAST DSA MEETING



Superb Jewelwing (*Calopteryx amata*) – male

© Blair Nikula

The Northeast regional meeting of the Dragonfly Society of the Americas will be held in the White Mountain area of New Hampshire the weekend of 22–25 June. Organized by Pam Hunt and based in the town of Twin Mountain, the weekend will offer the possibility of several northern species, perhaps including Superb Jewelwing (*Calopteryx amata*), Taiga Bluet (*Coenagrion resolutum*), Subarctic Bluet (*C. interrogatum*), a variety of clubtails and emeralds, and some early darners – all in the shadow of the highest peaks in the Northeast. Twin Mountain is close to the Pondicherry Wildlife Refuge, Franconia Notch, Crawford Notch, and the Kancamagus Highway, with access to a variety of northern bogs, rocky streams and mountain ponds.

A block of rooms has been reserved at the Four Seasons Motor Inn and those planning to attend are urged to make reservations soon (website: <www.4seasonsmotorinn.com>; phone: 800-228-5708); special DSA rates are \$65/double and \$70/deluxe king. Contact Pam for additional details and to let her know you are coming (biodiva@fcgnetworks.net).

2006 DSA NATIONAL MEETING

The annual meeting of the Dragonfly Society of the Americas will be held in Kentucky on the weekend of 9–12 June. The meeting is being organized by Carl Cook and Ellis Lauder milk and will be based in the small town of Cave City. The area has numerous streams and rivers that host a rich diversity of clubtails (Gomphidae) and other odonates. Additional details can be found online at:

<http://odonatacentral.bfl.utexas.edu/dsal/annual_meeting.htm>

FALL FLIGHTS OF AUTUMN MEADOWHAWKS IN EASTERN MAINE

Richard W. Hildreth

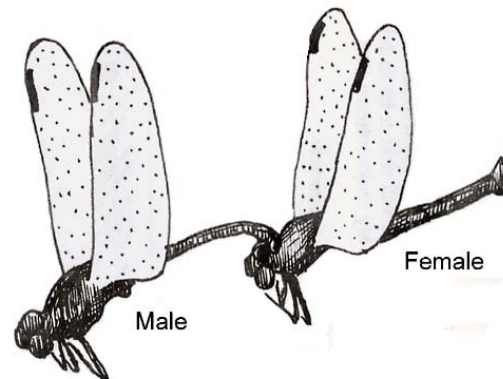
I first noticed “towing” (*i.e.*, tandem) pairs of Autumn Meadowhawks (*Sympetrum vicinum*; formerly known as Yellow-legged Meadowhawk) on the move in October 2000 as they flew across a power line cut in Milford, Massachusetts. Later that month I saw towing pairs flying across Plum Island, heading out over the salt marsh on a southwesterly heading. These and other observations from Connecticut and New Jersey were detailed in *Ode News* (7[2]:6-7). Similar movements were reported from Ontario in 1996 and 1998 (*Argia*, 9[1]:19-21 and 10[4]:19-22).

During the fall of 2001, I saw additional flights of meadowhawks, including 33 towing pairs in two hours passing over Peaked Mountain in Clinton, Maine (Penobscot County) on 7 September; 14 towing pairs flying southwest in Steuben, Maine (Washington County) on 8 September; and 18 towing pairs crossing Plum Island, Massachusetts, in early October. Large numbers of towing pairs were also reported from coastal Connecticut later that month (*Ode News*, 8[2]:8). Every year since I have seen a few towing pairs flying southwest in both Massachusetts and Maine.

During September and October 2005, I was in eastern Maine and one of my projects was to spend six days hawkwatching on Schoodic Mountain in T9 SD (Hancock County). On 6 September, my first day on the mountain, I saw four towing pairs of Autumn Meadowhawks flying southwest over the bald

summit between 1200 – 1300 hours. On my next visit, on 13 September, I saw four more pairs pass during the same time period. Then, on 19 September, from 1100 – 1400 hours, I counted 472 pairs heading southwest over the mountain. Three later visits to the mountain produced no additional sightings and I assumed the flight was over.

However, on 3 October I went inland to T34 MD (Hancock County) to look for migrating insects and birds along a pipeline right-of-way. From 1000 – 1300 hours I saw 53 towing pairs of meadowhawks flying rapidly southwest, diagonally across the pipeline corridor. The accompanying table details my 2005 observations from Maine.



R. W. Hildreth

Towing pairs of Autumn Meadowhawks in eastern Maine – Fall 2005

Time	Schoodic Mountain Hawkwatch						Pipeline
	6 Sept.	13 Sept.	19 Sept.	21 Sept.	24 Sept.	2 Oct.	3 Oct.
0800-0900	0	0	0	0	0	0	
0900-1000	0	0	0	0	0	0	0
1000-1100	0	0	0	0	0	0	4
1100-1200	0	0	268	0	0	0	40
1200-1300	4	4	149	0		0	9
1300-1400		0	10			0	
Totals	4	4	472	0	0	0	53

DAMSELFLIES OF THE NORTH WOODS

Bob DuBois, w/photos by Mike Reese. 2005. Kollath-Stensaas Publishing. 132 pages. 4½" x 8¼". 120+ color photos. \$18.95.

The newest in the North Woods Naturalist Series, a series of field guides covering the western Great Lakes region, this latest addition is a companion volume to *Dragonflies of the North Woods*, published in 2003 (reviewed in *Ode News*, Vol. XI, No. 1). This latest guide covers 46 species of damselflies, all but two of which occur in New England, making it highly useful for observers throughout the Northeast.

The size of the guide (4½ x 8¼"), like the others in the series, is somewhat unorthodox, but makes it readily "pocketable." It is printed on glossy stock and appears to be of durable construction.

Twenty-six pages of introductory chapters are liberally illustrated and cover the expected subjects such as damselfly anatomy, biology, and behavior, observing damselflies, and how to use the guide. The author writes in a very informal, easy-to-read style and the information is thorough and accurate.

Each family receives two pages of description, with an additional page or so of introductory material for each genus. Black-and-white drawings illustrate male appendages for the spreadwings (Lestidae) and pond damselflies (Coenagrionidae), as well as the terminal abdominal segments of female spreadwings.

The species accounts entail 94 pages and include sections entitled "Description," "Identification Clues," and "Life Cycle." In most cases there is also a side bar entitled "Nature Notes" which has interest-

ing tidbits of information not covered (usually) in the other categories. For each species there are a range map, a size bar, and a phenogram illustrating the flight season, under which is a description of the habitat. Each species, with one exception (Sphagnum Sprite), receives two pages of coverage. In addition, there is a two-page section on "rare strays" that provides brief coverage, with one small photo each, of seven additional species (two of which, Slender Bluet and Lilypad Forktail, occur in New England).

The guide is abundantly illustrated with over 120 color photos, most by Mike Reese, but with a few contributions from several others. For all but two species, both sexes are illustrated, and for many species an additional photo or two illustrates either some aspect of behavior (e.g., ovipositing pairs), immature forms, or closer views of identification features. The photos are virtually all excellent, as is the photo reproduction. All of the main photos are reproduced at greater than life size, making the salient field characteristics easy to see in most cases.

The book concludes with a glossary, a checklist, a short list of dragonfly groups and websites, a brief bibliography, a two-page review of binoculars suitable for dragonfly watching, and an index.

Damselflies of the North Woods is superior in both content and photo quality to its dragonfly predecessor and is a fine addition to the growing

list of odonate field guides. There were a number of identification and natural history tidbits that were new to me, and odophiles in New England will find much of interest within its colorful, well-produced pages.

Blair Nikula



BIBLIOGRAPHY OF NEW ENGLAND ODONATA

Among the items on the *Ode News* Website is a bibliography of New England Odonata:

<www.odeneews.org/bibliography.htm>

This list currently contains hundreds of publications on odonates originating from, or in some way relating to, this region. We are eager to keep this useful listing up-to-date and solicit the assistance of all our readers in this effort. With the burgeoning interest in odonates, it is becoming increasingly difficult to stay abreast of the new and diverse literature in the field. If you are aware of any pertinent publications missing from this bibliography, please contact us (odeneews@odeneews.org) so that we can add the citation to the list. Thanks!

Ode News

Editorial Staff & Production Blair Nikula
Lynn Harper
Illustrations Jackie Sones

Ode News is available at no charge (though contributions are welcome!). If you would like to be placed on the mailing list, or have questions or comments, contact us at:

Ode News
2 Gilbert Lane
Harwich Port, MA 02646
e-mail: odeneews@odeneews.org
web site: <http://www.odeneews.org>

Special thanks to Thompson's Printing in Orleans for their generous assistance in the production of Ode News!

Ode News

2 Gilbert Lane, Harwich Port, MA 02646