Massachusetts Butterflies

Fall 2006, No. 27

Massachusetts Butterflies is the semiannual publication of the Massachusetts Butterfly Club, a chapter of the North American Butterfly Association. Membership in NABA-MBC brings you *American Butterflies*, *Massachusetts Butterflies, Butterfly Gardener*, and all of the benefits of the association and club, including field trips and meetings. Regular dues are $30 for an individual, $40 for a family, and $60 outside the United States. Send a check made out to NABA to: NABA, 4 Delaware Road, Morristown, NJ 07960.

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Cover photo: Common Checkered-Skipper (Pyrgus communis), by Barbara Spencer, Northampton Community Gardens, 9-05-06

Mystic Harvesters

Renee LaFontaine and Marjorie Rines

We have been birding together for a long time, but a few years ago we, like a lot of birders, started getting interested in butterflies. When we discovered Harvesters (*Feniseca tarquinius*) in our own neighborhood near the Lower Mystic Lake and along the banks of the Mystic River in Medford and Arlington, it led us to many hours of pleasure as we watched and studied this strange little butterfly. We learned that it was North America's only carnivorous butterfly, its caterpillars eating an aphid that lives on alders. It surprised us how little we could find about the life history of Harvesters, and how our observations were not always consistent with what we read. After three years of study we have a few conclusions but still many questions.

Timing of Sightings

July 22, 2003 was the day Renee spotted the first Harvester. She immediately called Marj who came over, and as we were watching, the Harvester flew high in the air where it was joined by a second one. They seemed to duel as they spiraled upward, then came down and landed on separate elm leaves a few yards apart. As we were leaving the area, Marj noticed an orange spot on a poison ivy leaf – a third Harvester.

Over the next few weeks we could see that the Harvesters favored specific perches where they could be found day after day, such as the elm leaf, the poison ivy leaf, and a nearby maple leaf. As we studied Marj's collection of photographs of the elm leaf alone, we could see that at least 10 different individuals had used this perch. When we talk about the "elm leaf" we are referring to any of

several leaves on a single very small elm sapling, within an area of less than a square yard.

By mid August, we'd seen as many as seven butterflies in a single day, matching the state record, but it was Marj who got the high count for the summer when she saw 18 butterflies on August 28. After that, they seemed to disappear, and we didn't find any more in the wild after September 1.

We'd also learned how to recognize the woolly alder aphids, eventually finding five or six colonies, always on small branches of the introduced Black or European Alder (*Alnus glutinosa*), usually attended by ants.

When the summer of 2004 arrived, we were curious about whether we'd find Harvesters again. The Harvester is sometimes called "the wanderer" because of its habit of appearing and disappearing in a location based on the availability of aphids. But 2004 was a great year for aphids near the Mystic Lakes, and therefore for Harvesters. We found dozens of trees with aphid colonies starting as early as late June.

We found our first butterfly of the season on June 13, then nothing until July 16, when Renee spotted a chrysalis on a leaf and the following day a freshly eclosed butterfly. For the next month we saw butterflies in the single digits (2-7), and then in mid-August the numbers jumped to double digits (12, 16, 19, 22). On August 25 we decided to go for a new record since the numbers were increasing, and with Marj in the lead with a stick prodding the branches of the trees and vines, Renee followed to look for butterflies flying up. We set a new record with a total of 26 butterflies.

Late August was the time of year when they seemed most active, interacting in dueling flights (although we never observed any obvious mating) and sometimes sitting with their wings spread open. By the end of August, the numbers were declining steadily, and the last butterfly was seen on September 24.

In 2005 sightings were similar: the first few butterflies in early to mid June, then a pause before more sightings in mid July, another peak – a maximum of only 12 that summer – in late August, and worn butterflies persisting until mid-September.

These observations suggest that there are three flights in our area: a small flight in early/mid June, a larger one in mid July, and the largest flight in mid/late August.

Habitat and Behavior

The literature says that Harvesters are found near swampy glades, wooded river banks, and forest trails, staying close to alder trees where the woolly alder aphids live. Adults don't nectar on flowers, but on the honeydew secreted by the aphids. Our site is certainly not swampy, but there are lots of alder trees along the lake and river and also some silver maples where the aphid eggs overwinter.

What seemed extraordinary to us was that each year butterflies chose almost exactly the same perching places as their antecedents had in past years, such as the elm leaf and poison ivy leaf. Often these places had very little in common. For example, the poison ivy leaf was in a conspicuous sunny location at the top of a berm, and the elm leaf was in a shady lower location surrounded by similar vegetation.

In almost all cases, the butterflies were found perched within 10-15 feet of an aphid colony. One strange exception is the elm leaf, which in all three summers was probably the most reliable place to find a butterfly. Try as we might, we couldn't find any aphids within 70 to 80 yards of this perch! Also, the butterflies seldom perched on alder leaves. They used elm, maple, oak, poison ivy, and various other vines. They seemed to like prominent leaves at a slight angle. We usually found them near eye level, probably because this was the easiest to see. In a few cases we actually saw Harvesters on the aphids, sipping their honeydew or ovipositing.

Life History

For birders the imperative is "do not interfere," so, when we discovered the first caterpillars in late August of 2003 we left them in place and watched them. We had been reading up on Harvesters, and knew that the adults laid their eggs among the aphids, that they had an unusually short life cycle of as little as 21 days, and the caterpillars had only four instars. We had read in several places that they pupated on branches, so when caterpillars disappeared we went over every inch of the stem with a loupe but found nothing. We worried that the caterpillars had been eaten or killed by ants.

On September 11 Renee discovered half a dozen caterpillars in a patch of aphids, but two days later only one remained and there were almost no aphids left. At this point we both felt pretty invested, so discarding the "do not interfere" imperative she collected the caterpillar and what was left of the aphids, which were quickly eaten. We collected another branch of aphids for food, but it turned out that there weren't just aphids on the branch, because Renee kept discovering more caterpillars, eventually totaling 15: the original one, 8 large caterpillars and 6 smaller ones. We divided them to share the pleasure of raising them.

Table 1 shows the timing of the development of the butterflies we raised in the fall of 2003. The dark gray shows the larval stage, and light gray shows pupation. “D” indicates the day we discovered the larva, “P” shows the day of pupation, and “E” shows the date of eclosure. On September 18 we ran out of aphids, and on the 18th and 19th all the remaining larger caterpillars pupated, to our surprise all of them on the alder leaves. It seemed that the smaller caterpillars had disappeared, but on September 22 Renee discovered two chrysalises from the smaller caterpillars, and we don’t know exactly when they actually pupated. The two smaller caterpillars at Marj’s disappeared on the 17th and we assumed they were gone for good.

While they were caterpillars, we kept them in glass containers inside the house, but when they pupated we each moved them to an unheated porch with natural lighting. The seven butterflies we raised to adulthood in 2003 eclosed between October 2 and October 12. The smaller caterpillars produced significantly smaller pupae, and we wondered if they were forced into early pupation by the loss of the food source. These smaller pupae took over 18 days to eclose, versus 14-15 days for the larger pupae. If they were forced into early pupation, did they have to make this up at the other end before eclosure? The literature states that pupation takes 8 to 11 days; did October cold slow this down? We also raised caterpillars in 2004 and 2005, but this time starting in June or July. These eclosed in 9 to 12 days.

We were puzzled by the October eclosure of our captive butterflies. There was nothing in the literature about an October flight, and we hadn’t found butterflies in the wild after mid-September. Did this suggest that they might overwinter as adults? None of the literature we consulted seemed to either know or agree

on how Harvesters overwinter. Most postulated overwintering either as pupa or even late-stage larva. Only the older literature, Scudder (1899) and Klots (1951), postulate overwintering as adults, Scudder stating that "at least battered specimens have been taken on the wing very early in the year before the complete unfolding of the leaves, and butterflies have been known to emerge from the chrysalis as late as the last of September."

Another possibility was that some aspect of the way we raised them in captivity had affected the lifecycle. Perhaps the artificial indoor light and temperature during the larval stage or the termperatures on our enclosed porches during the pupal stage had contributed to the October eclosure.

We released the butterflies of course, since we didn't know what else to do. We took them back to the place we had collected them and opened the container, but our fledglings were reluctant to leave. We picked them up to try to orient them to their surroundings, but only a few took flight, and then not very far. In some cases we just put them on a leaf and left. At the time, we simply assumed this lethargy was due to the chilly October days, but if we assume they overwinter as adults, then it starts to make sense. The newly-eclosed adult may simply be wired to crawl into a protected location and shut down for the winter.

April 19, 2004, the following spring, was a beautiful day, and Marj let her cats (felines, not larvae) out on the porch which had warmed up nicely in the sun. When she noticed one nosing something, she was shocked to discover it was a live Harvester, so worn it was almost unrecognizable. Remembering the two caterpillars that had disappeared last fall, we realized that here is what happened to one of them, but we had no way of knowing how it overwintered. In the fall of 2005 Marj had three pupae that never

eclosed, two of which had pupated on surfaces other than alder leaves: one on a paper towel and the other on the edge of a table. She assumed this "abnormal" pupation had made them inviable, but she checked them routinely as spring approached and on April 21, 2006, she discovered two dead butterflies along with the papery empty chrysalises. Here is proof that they can and do overwinter as pupae.

In the summer of 2005 we tried marking a few of our "raised in captivity" butterflies with a Sharpie pen in order to see how far each individual would travel. This experiment was a failure, since we never again saw any of our marked butterflies after we released them.

As long as our Harvester colony remains, there are possibilities for answering some of the questions we still have. Can a caterpillar be forced into pupation before its normal time if it is deprived of food? If so, would this increase the time from pupation to eclosure? Finally, we would like to raise more caterpillars in late fall to see if we can determine what might contribute to the overwintering stage.

For more information and photographs see:
http://mrines.com/Butterflies/Harvesters/index.htm

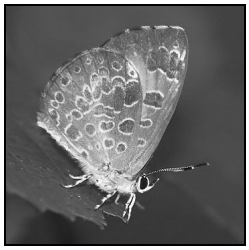
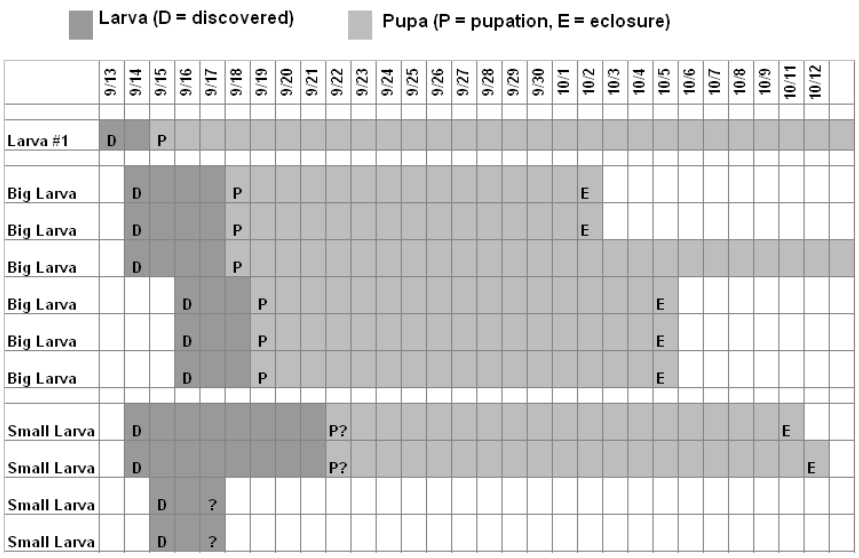


Photo: Tom Whelan

Table 1

2003: Showing Dates of Pupation and Eclosure



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The Massachusetts Butterfly Atlas

Chris Leahy and Taber Allison

From 1986 to 1990, hundreds of volunteer butterfly enthusiasts spent thousands of hours in the field in an effort to record the distribution of Massachusetts butterflies--the first systematic statewide butterfly atlas to be undertaken in North America. As with other North American atlas projects, the data were collected within a grid based on USGS topographic quadrangles. Each quad was divided into six equal blocks, and participants attempted to verify the presence of as many species of butterfly as possible within each block, noting a variety of other data with each record. The result was the most detailed summary of the spatial and seasonal distribution of Massachusetts butterflies ever compiled.

The effort exerted during the five active field seasons of the Massachusetts Butterfly Atlas Project (MBAP) can be seen in the following statistics:

Number of contributors: 154
Number of quads covered: 186 (100% of quads)
Number of blocks covered: 723 (65% of blocks)
Number of confirmed species: 102
Number of unduplicated records: 7,369 records in database; 7,223 unduplicated records (a species was recorded more than once per block 146 times.)

Following the five-year data collection period, the project's coordinators (Brian Cassie, Chris Leahy, and Dick Walton, along with several volunteers) completed and edited species accounts. They not only summarized the atlas data, but also included status and abundance information, life histories, and other material

pertaining to all species of butterflies then known to occur in Massachusetts-including those not found during the duration of MBAP fieldwork.

With support from members of the Massachusetts Butterfly Club, Mass Audubon has created the Butterfly Atlas website: www.massaudubon.org/butterflyatlas. The site is an initial effort to bring all of this valuable information on Massachusetts butterflies to a broad public audience. Anyone entering its portals can access not only the distribution maps, which by definition are the heart of any atlas, but also full species accounts and color images of all Massachusetts butterflies.

The Atlas maps represent a "snapshot" in time of Massachusetts butterfly distribution. This is the primary function of a biological atlas for conservation purposes—to set a baseline against which successive future surveys can be compared. The Status section in the species accounts also reflects what we knew about the Commonwealth's butterfly fauna beginning two decades ago. Since then, the Massachusetts Butterfly Club—which was founded as a result of the information and enthusiasm generated by the atlas project—has added enormously to our knowledge of the state's butterflies. From 1990 to 1998, for example, the club accumulated 19,000 records. These additional data have filled many holes in the atlas maps and have refined our perceptions of distribution and abundance.

In this phase of Atlas publication, we have chosen simply to present the 1990 snapshot. While we hope the long-awaited publication of this work will be valuable in its own right, our hope is that the website will evolve into a "living" document of the butterfly fauna of the Commonwealth—including the wealth of new records and recovered historical records—to which anyone

with an interest in these extraordinary insects can refer and contribute.

Future additions and improvements to the website are anticipated in the near future including:

- The ability to search the database of butterfly records accumulated during the Atlas project
- Updated distribution records reflecting the substantial data collected by members of the Massachusetts Butterfly Club since the completion of the Atlas in 1990
- A mechanism for continued updates and comparisons of past and current butterfly distributions
- An extensive bibliography of butterfly taxonomy, distribution, and ecology

On this website, you will find links to the Massachusetts Butterfly Club as well as other butterfly resources. We especially appreciate the contributions of the members of the Butterfly Club, many of whom generously contributed their photographs, in making this website a reality.

In the spirit of making the Massachusetts Butterfly website a living document we welcome suggested revisions to all parts of the website. Simply e-mail your contributions to butterflyatlas@massaudubon.org.

2006 Fourth of July Butterfly Counts

Compiled by Erik Nielsen

With the addition of the Boston count circle in 2006 there are now seventeen counts conducted across the state during the month of July. [See the map on p. 18.] This year participants totalled 21,994 individual butterflies of 74 species. Nine species were seen in only a single count circle, and another seven were found in two.

Topping the highlights was the earliest Checkered White ever for the state. It was found by Tom Gagnon on the Central Berkshire count. He quickly alerted Tom Tyning who was able not only to see it, but also to obtain some decent photographs. The other eight species found on only a single count were 6 Canadian Tiger Swallowtails (Northern Berkshire), 8 Mustard Whites (Central Berkshire), 7 Harvesters (Boston), 2 Oak Hairstreaks (Martha's Vineyard), 1 Milbert's Tortoiseshell (Northern Worcester), 2 Tawny Emperors (Northampton), 1 Sachem (Middleboro), and 1 Pepper and Salt Skipper (Northern Berkshire).

1467 of the 1499 total for Bog Coppers were in the Central Franklin circle, 30 of the 31 Acadian Hairstreaks were found on the Central Berkshire count, and 77 out of the 78 Edwards' Hairstreak total were on the Vineyard. Bronze Coppers, which are quite rare anywhere away from the Sudbury River Valley, were found on all three Berkshire County counts.

Monarchs were generally seen in way above average numbers across the state. It was the second most numerous butterfly, after European Skipper, and it and Orange Sulphur were the only species encountered on all of the counts. 1010 Monarchs or almost half the state total of 2035 were seen on the Northampton count.

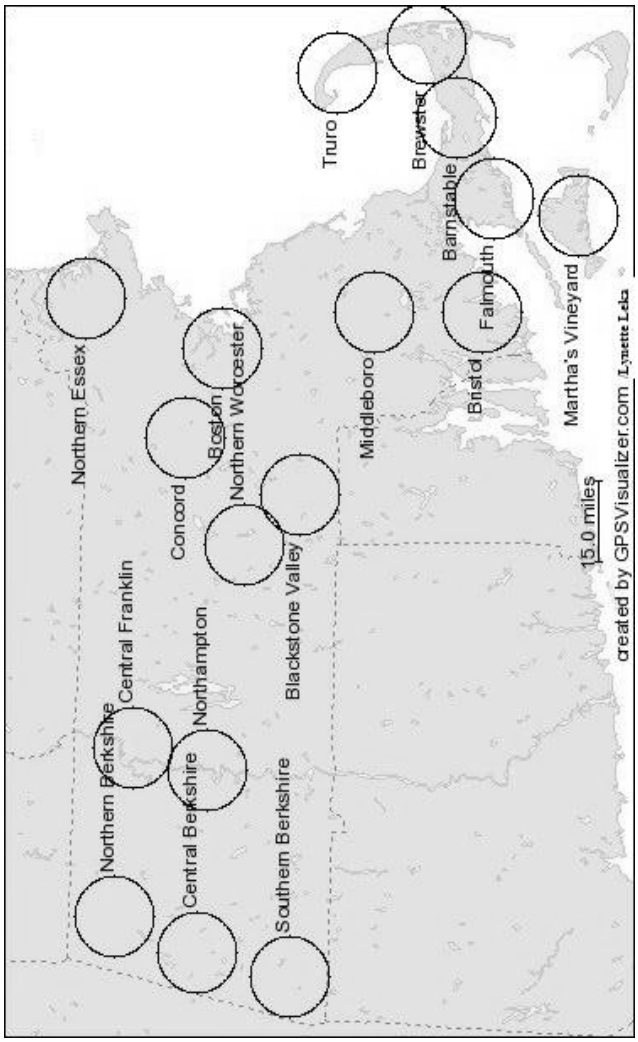
	Martha's Vineyard	Truro	Barnstable	Brewster	Falmouth	Bristol	Middleboro	Blackstone Corridor	Boston	Northern Essex	Concord	Northern Worcester	Northampton	Central Franklin	Southern Berkshire	Central Berkshire	Northern Berkshire	Total
Black Swallowtail	6					1	5	10	23	11	5	11	86	6	5	2	2	173
Eastern Tiger Swallowtail	10	12	8	1	1	2	2	19	6	22	9	13	13	14	3	2		137
Canadian Tiger Swallowtail																	6	6
Spicebush Swallowtail	2	8	1	7	9	10	4	14	1	1	2	12	11	12		1		95
Checkered White																1		1
Mustard White																8		8
Cabbage White	29	6	14	96		2	75	16	129	37	16	157	367	40	27	2	40	1053
Clouded Sulphur	32	2	3	1	6		99	30	29	76	15	99	68	96	82	29	18	685
Orange Sulphur	77	6	10	27	45	9	22	88	23	26	20	44	107	35	10	12	12	573
Harvester									7									7
American Copper	238	12	13	13	24		2	72	2	8	39	318	14	56	2	3		816
Bronze Copper															2	1	1	4
Bog Copper		21										11		1467				1499
Coral Hairstreak			1		2	2		8		3	7			11		5	2	41
Acadian Hairstreak															1	30		31
Edwards' Hairstreak	77							1										78
Banded Hairstreak	3				1			2			1	8	1	45	34	15	24	134
Hickory Hairstreak					1								1		6	3	12	23
Striped Hairstreak	3							7				4	1	2		8	7	32
Oak Hairstreak	2																	2
Gray Hairstreak								6		1	9			3				19
Eastern Tailed-Blue	5	1	6		22		6	86	6	27	48	78	120	40	1	3	8	457
'Summer' Spring Azure	1						2	20	7	12	23	11	10	21	8	3	10	128
Variegated Fritillary	1												1		2			4
Great Spangled Fritillary						1	2	25		19	10	60	13	38	60	33	22	283
Aphrodite Fritillary								4				39	4	10	1	3	1	62
Atlantis Fritillary															1	12	3	16

	Martha's Vineyard	Truro	Barnstable	Brewster	Falmouth	Bristol	Middleboro	Blackstone Corridor	Boston	Northern Essex	Concord	Northern Worcester	Northampton	Central Franklin	Southern Berkshire	Central Berkshire	Northern Berkshire	Total
Silver-bordered Fritillary										1			4	48				53
Meadow Fritillary														19	10			29
Pearl Crescent	1		60	2	9	45	12	240	16	1	203	8	920		8	1		1526
Baltimore Checkerspot	1							99		326		4	12	112	48	35	17	654
Question Mark								11	1	1	2	1	8	6	2	2	3	37
Eastern Comma							2	2	3	2	3	3	4	2	1	5	4	31
Compton Tortoiseshell								1		1				2		2	43	49
Mourning Cloak		3			1		1	5		4	2	12	2	7	2	20	16	75
Milbert's Tortoiseshell												1						1
American Lady	3			1				3			1	3	5	1			1	18
Painted Lady		1					1											2
Red Admiral	1				1			2	9	3		4	7	1	1		1	30
Common Buckeye	1				2			1										4
Red-spotted Admiral	1				2			1		1		5	12	5	2	11	39	79
Viceroy						1	1	7	3	2	1	2	22	2	2			43
Tawny Emperor													2					2
Northern Pearly-Eye								2				1	2	3	1	3	3	15
Eyed Brown										2	15	23	2	5	9	7	4	67
Appalachian Brown	4					3		9		3	5	10	3	7		3		47
Little Wood-Satyr	4	11		11			1	72	2	15	19	39	8	5	17			204
Common Ringlet							32		2			4	17		2	1	7	65
Common Wood-Nymph	86	2	5	26	29	25	4	246	22	16	24		480	4	788	216	12	1985
Monarch	229	13	51	49	39	12	20	119	63	81	56	116	1010	38	44	54	41	2035
Silver-spotted Skipper	34	28		2	13	3		51	3	27	24	74	27	58	2	5	1	352
Hoary Edge								4				1		6				11
Southern Cloudywing					1			1						10				12
Northern Cloudywing												4		7				11

		Martha's Vineyard	Truro	Barnstable	Brewster	Falmouth	Bristol	Middleboro	Blackstone Corridor	Boston	Northern Essex	Concord	Northern Worcester	Northampton	Central Franklin	Southern Berkshire	Central Berkshire	Northern Berkshire	Total
Horace's Duskywing							2		1	1									4
Wild Indigo Duskywing		1		3		13	9		8			22		16					72
Common Sootywing									9	19		4		41	3				76
Least Skipper				2				4		2	6		6	7	4	4		6	41
European Skipper		10	4	1					2		4		6030	2	130	87	27	467	6764
Peck's Skipper				7				1						3		2	8	7	28
Tawny-edged Skipper		6	3	2		1		1	2	1	2	6	7	2	9	7		1	50
Crossline Skipper		3	8		1				8		1	3	8	1	6		1	2	42
Long Dash													2	1	2	2	1	2	10
Northern Broken-Dash		6		5	7	3	6		65	27	33	31	21	29	22	3			258
Little Glassywing								1	17		7	1	14	12	7	3		2	64
Sachem								1											1
Delaware Skipper			3			3			28		14	22	41	11	24	1	4		151
Mulberry Wing								2	35		8	46		5	6	2			104
Hobomok Skipper													2					1	3
Broad-winged Skipper							2		24	10		2					3		41
Dion Skipper																1		1	2
Black Dash							2				2	2		2	4				12
Dun Skipper		82	14	3	7	2		1	64	2	9	48	22	78	23	46	47	1	449
Pepper and Salt Skipper																		1	1
Greater Fritillary sp.																2			2
White Admiral																	2	17	19
Red-spotted Purple		1				2			1		1					2	9	22	38
Comma sp.														1					1
Duskywing (sp.														1					1
Grass Skipper sp.							3								10				13

Summary	No. of Individuals	No. of Species	No. of Participants	Party Hours	Date	Compiler
Northern Berkshire	851	40	7	25	7/9	Tom Tyning
Central Berkshire	632	41	5	19	7/16	Tom Tyning
Southern Berkshire	1344	43	9	27.5	7/11	Rene Laubach
Central Franklin	2494	49	7	41	7/8	Mark Fairbrother
Northampton	3576	48	18	48	7/23	Dottie Case
Northern Worcester	7333	43	16	35	7/9	Carl Kamp
Concord	746	36	15	15	7/16	Dick Walton
Northern Essex	815	38	11	18	7/9	Sharon Stichter
Boston	419	27	5	25	7/23	Andrew Birch
Blackstone Corridor	1547	47	11	37.8	7/15	Tom Dodd
Middleboro	304	26	1	6.5	7/21	Karen Holmes
Bristol	140	18	1	4	7/22	Mark Mello
Falmouth	230	23	2	7.5	7/16	Alison Robb
Brewster	251	15	5	9	7/22	Alison Robb
Barnstable	195	18	5	7	7/29	Alison Robb
Truro	158	19	2	5	7/8	Tor Hansen
Martha's Vineyard	959	31	6	15.8	7/15	Matt Pelikan
Total	21994	74				

Fourth of July Butterfly Count Circles – Massachusetts 2006



Trip Reports:
Connecticut Lakes, New Hampshire

Bill Benner

It was a hot, hot week, that last week of July 2006, with near record-breaking temperatures of 100 degrees or more, and stifling humidity. It was the kind of heat that hits you like a wall when you walk outside in midday, slows your steps, makes you want to sit and melt in the shade. Even the butterflies seemed a little less noticeable in the noontime heat, except for the Monarchs, which were everywhere in this banner Monarch year.

How lucky we were, then, that with perfect timing and excellent coordination, Tom Gagnon organised a trip to the North Woods of New Hampshire, where we were suddenly immersed in a cool, crisp, fir-scented habitat far removed from the swelter further south. We arrived in small bands, scattered throughout the day on Thursday August 3rd, a cloudy and decidedly cool day in northern New Hampshire, a day that at first seemed a little ominous. Some of us stopped at Beaver Falls on the way—a raging torrent, thanks to the hard rain the area had experienced the day before. But by the time we arrived at Powder Horn Lodge, our comfortable retreat on Back Lake, near Pittsburg, the skies were beginning to clear, and by late afternoon the sun was shining. It was the start of a fantastic weekend!

The butterflying actually began for some of us that afternoon, when we took a ride to Day Road, just a few miles from the Lodge. The weather remained a little cool and cloudy, but we were still able to see some great butterflies to whet our appetites for the weekend to come. Three species were added to the trip list here that didn't appear again later in the weekend—MUSTARD

WHITE, APHRODITE FRITILLARY (rare here), and EASTERN TAILED-BLUE (more about tailed-blues later…)

Friday dawned crisp and clear. Some of us got to enjoy blueberry pancakes for breakfast, fortifying us for the day ahead. We then set out, following co-leader Erik Nielsen, who has been butterflying this part of the world for many years and whose knowledge of the local fauna is extensive and inspiring. . [See his "Northern New Hampshire Butterfly Notes," *Massachusetts Butterflies* 22, Spring 2004—Ed.] We started by heading to East Inlet Road, then turning left at the intersection towards Scotts Bog. Karl and Marvin went on ahead to go kayaking at the bog itself, while the rest of us parked not far from the intersection to wander up the road and butterfly. One of the first butterflies we saw along this stretch was a MONARCH, followed shortly by our first AMERICAN COPPER, that gorgeous little gem. The first of what were to be many ATLANTIS FRITILLARIES put in an appearance. Then, we got excited by Dolores' spotting of a little skipper in the ditch, a small orange guy who turned out to be a EUROPEAN SKIPPER. This would be astonishingly late to see one in our neck of the woods, but here they could have possibly simply been at the end of their normal flight period.

The next skipper was the real prize-winner, though. I am not sure who first spotted it, but along the edge of the road, possibly just emerged, certainly stationary and photogenic, was an absolutely pristine COMMON BRANDED SKIPPER. This has to be one of the prettiest North American skippers. This green and orange version here in the East is beautiful, and this particular individual was spectacularly fresh. The white spots were gleaming, each edged and fringed with pure black. The wing fringes were perfect—I don't think there was a scale missing on the entire butterfly. And not only that, but it just sat there and allowed long,

leisurely looks and photos from every angle. You couldn't ask for a better look at a life butterfly.

Then, the shout of "Comma!" came from down near the cars, and there at the intersection was our next life butterfly, a fantastic GREEN COMMA, again perfectly fresh. Just like the Branded Skipper, this butterfly gave us wonderful, prolonged looks as well as good photos. It would open its wings, lie flat for a while, then close them to give us a good chance to study its underside. The greenish marginal marks that give the species its name were visible on this individual, though not as easy to see as on some of our later ones. Still, it was our first, and so it was outstanding.

We wandered further up East Inlet road to the intersection known as "Spruce Alley," where we were greeted by a swarm of ATLANTIS and GREAT SPANGLED FRITILLARIES on Joe-Pye Weed. We were soon seeing SILVER-BORDERED FRITILLARIES in good numbers. We made our way along the old grassy road, which quickly became grassy puddles, thanks to the previous night's rain. But, there were only a couple of really deep spots. And soon another shout went up, as leader Erik spotted our first PINK-EDGED SULPHUR! Once again, we had a perfectly cooperative individual of a species that often doesn't cooperate well at all. Instead of bounding along the road and not stopping, as sulphurs often seem to do, this one sat quietly and cooperatively for all the oohing, and aahing and photographing we could desire. Almost everyone in the group got to see it; folks were even removing their shoes to wade and hike in barefoot through the mire to get to the butterfly. The Massachusetts Butterfly Club doesn't mess around.

But we weren't done yet! While we were exclaiming over the sulphur, Dolores Price was out discovering new species! Or at

least, new records for New Hampshire. She found a little tailed-blue that we were able to relocate back at the road, which looked for all the world like a WESTERN TAILED-BLUE!! This is a species which occurs across southern Canada into Maine, and could certainly be found in the area we were searching, though up until now no one had. Various experts have weighed in, and we are still awaiting other opinions. Stay tuned.

We finally tore ourselves away from this wonderful spot, and moved further up East Inlet Road. Soon, commas began appearing in the road. At first we saw GREEN COMMA again, but then we soon saw a comma with a nice frosted forewing tip below—a beautiful GRAY COMMA. This was another life butterfly for many of the folks on the trip. We ended up seeing several of these, and we got looks at the top side as well, and were able to compare this with the GREEN COMMA's extra forewing and hindwing spots. The skies were getting darker, but East Inlet Road had one more gift for us—a fantastic HOARY COMMA, seen around mile 7 or so, just where Erik predicted. We only got ventral looks, but they were good looks. This Eastern subspecies has a very sharp demarcation between the dark wing bases and the silvery gray outer wings, and then this outer wing frostiness fades to black as it approaches the wing edges. Striking and beautiful. Almost immediately after this sighting, the skies opened up, and butterflying was over for a while.

Our weekend continued like this, with one nice butterfly after another. Saturday, we all enjoyed a beautiful walk along a ridgeline on Smith Brook Road. The afternoon saw us back on East Inlet Road, enjoying many of the species we had seen yesterday, as well as an encounter with a young MOOSE on the road. On Sunday, some of us extended our butterflying as long as possible by making a detour to Mt. Washington. We couldn't have

asked for a better day, weather-wise. It was quite cool in the morning, but brilliantly sunny, and it remained that way all day, even on the top of Mt. Washington. We stopped at the Cragway Spring parking lot, at 4500 feet, and immediately spotted our first PURPLISH FRITILLARY, our target butterfly here and a specialty of the Presidential Range in New Hampshire. This one was actually foraging right next to the parking lot, and it took a little chasing, but most people got decent looks at this very first one. Even prettier, though, were the ones we saw on the other side of the road, in the vegetation along the stream itself. Here, where the water trickles down among the rocks in the gully, there were beautiful purple Asters. These made a dramatic background for the dark orange nectaring fritillaries; a gorgeous picture.

All in all, it was a fantastically successful weekend for butterflies. And it wasn't just the butterflies. Hummingbird enthusiast Sharon Stichter got to meet Mr. Muise and his productive feeders just up the lake from the Powder Horn Lodge. Many of us were able to watch his Ruby-throats buzzing and feeding there in a virtual swarm, sometimes one occupying every port at the feeder like customers at a diner counter. Betsy Higgins tracked down some mobbing songbirds early Sunday morning and as a result had a great close encounter with a Weasel. Several of us had prolonged studies of Boreal Chickadees along the roadside right at the Lodge in the cool morning mist. Perhaps others of you had special moments as well. I went out for a trip with the kayak early Thursday afternoon and spent an idyllic hour poking along the quieter shoreline east of the lodge, serenaded by haunting Common Loons.

All together, 26 of us made the trip, a very congenial group of good friends. Everyone seemed to have an excellent time. I only wish you all could have come! If you can join us for field trips

during the 2007 season, please do—I learn many new things on every trip, and there's always a great wildlife encounter right around the corner.

Green Comma

Photo: Tom Murray

Common Branded Skipper

Photo: Tom Murray

Massachusetts Butterfly Club Members and Friends in Pittsburg, New Hampshire, August 2006

Back row (standing): Karl Barry, Elaine Pourinski, Tom Murray, Joe Stichter, Erik Nielsen, Betsy Higgins , Ron Cloutier, Rick Walker, Barbara Walker, Bill Benner, Sue Cloutier, Joyce Prince, Mike Walker, Kerry Walker, Steve Moore, Tom Prince

Front Row (kneeling): Elise Barry, Beth Herr, Bruce Callahan, Sharon Stichter, Trip Leader Tom Gagnon, Marvin St. Onge, Dolores Price, Dee Kuerzel, Randy Kuerzel, Joe Wicinski

(photo on preceding page)

Steve Moore with his pet Green Comma…

Photo: Tom Murray

…was quite an attraction !

Photo: Tom Murray

Southern Nectar Plants for your Garden

Sharon Stichter

Part of the fun of traveling to those southern butterfly hotspots in Florida or Texas is learning a bit about the local host and nectar plants. In my case, I am always thinking "Gee, I wish I could grow that back home!" Well, you can, at least within the limits of our short summer growing season. There are two types of plants to avoid, however: those that bloom too late to be of any use to butterflies in our area, and those that have the potential to become invasives.

Here are six southern plants which I have tried in my garden in Newbury, Massachusetts; I recommend the first four of them as useful nectar sources for butterflies and other insects. They are not as well known or widely available as zinnias, tithonia, pentas, lantana, or verbena bonariensis, but all except one are obtainable from the mail-order nurseries mentioned. I have also listed some excellent southern nectar plants for hummingbirds.

1. Senecio Vine (*Senecio confusus*), or Mexican Flame Vine I ordered mine as a plant from one of my favorite nursery sources, Select Seeds, in Union, Connecticut (www.selectseeds.com). But it is widely available, and usually grown as a pot plant, though I grew mine against a shed in the garden. It is 6-10' tall, with cheerful orange daisy-like flowers all summer long, which have attracted many butterflies, including Monarchs and American Ladies. A zone 10 native, it is not hardy. Select Seeds also carries other butterfly plants, and some wonderful hummingbird plants, such as *Salvia guaranitica*, Cypress Vine, Cardinal Climber, and good fuchsias. The one hummingbird magnet it should carry, but doesn't, is *Cuphea ignea* 'David Verity.'

2. Duranta (*Duranta erecta*) Golden Dewdrop This is an excellent butterfly nectar source in south Florida and Texas, where it grows to a small shrub or tree with racemes of light blue flowers and golden berries, and is sometimes used in street plantings. It is probably native to Central and South America. A free-flowering cultivar, 'Alba', with fragrant white flowers all summer, is available from Logees Greenhouses, Danielson, Connecticut (www.logees.com) . It is fast-growing, but I keep it in a large pot on the deck, and Cabbage Whites and Tiger Swallowtails have used it. A different species, *Duranta repens*, ('Sapphire Swirl'), with purple flowers, is native to Japan, and may or may not be a butterfly attractant. Logee's also usually carries two Justicias

which hummingbirds love: *Justicia brandegeana* (Shrimp Plant), and *Justicia spicigera*, both of which can be overwintered inside in a sunny window.

3. Shepherd's Needles (*Bidens alba*) My friend Dorothy Saffarewich, who goes to Florida every winter, gave me the seed of this super wildflower for butterflies. It is related to our northern Beggar's Ticks (*Bidens spp.*), but with larger, white ray flowers and without the annoying habit of sticking to you. *Bidens alba* is a beautiful annual which grows 6' high in my garden, blooms by early August, and provides nectar for many, many bees and butterflies right through until frost. Every year at the end of the season I collect the seeds, which germinate readily indoors the next April. The seeds have never survived the winter outside in my garden.

4. Cowpen Daisy (*Verbesina encelioides*) I purchased seeds of this and the next plant from Native American Seed , Junction, TX, (www.seedsource.com) , a wonderful nursery specializing in native Texas plants. You'll learn a lot about Texas ecosystems just from reading their catalog. Cowpen daisy, a non-hardy annual, germinates easily, and is ready to set outside in a sunny, well-drained location after the last frost-free date (traditionally May 25). The butter-yellow daisies appear midsummer through fall, and attract myriads of small bees as well as butterflies. I collect the seeds again in the fall; the plant is now a staple in my garden. Native American Seed also carries seed of Turk's Cap (*Malvaviscus drummondii*) for hummingbirds, which is very hard to find. Turk's Cap is easily grown as a pot plant, blooms at the right time, and can be overwintered in a sunny window inside. It's a sure draw for hummingbirds. Native American Seed has many other Texas natives good for butterflies, but strangely, it does not

list any Eupatoriums. At least one plant, Maximilian sunflower, is invasive in our area, and does not attract any butterflies.

5. Frostweed (*Verbesina virginica*) I first saw this interesting plant in Texas, so imagine my surprise when it proved to be hardy in my yard in northeastern Massachusetts! Not only that, it grows over 7' tall, and is rapidly forming a tough, dense clump. While the white flowers do provide nectar, they do not bloom for me until early October, rather late for most of our fliers. I have seen Monarchs use it, but this perennial bears watching as a possible take-over artist, and I hesitate to recommend it.

6.Mistflower, or Wild Ageratum (*Conoclinium [Eupatorium] coelestinum*) Here is a lovely ground-cover perennial, hardy in zones 5-9, which is a well-known butterfly flower in Florida and is related to those butterfly magnet Eupatoriums in south Texas. It performs well in my garden, with soft purple flowers, but, like the frostweed, it simply blooms too late (mid-September) to be of much use for most of our butterflies. I've actually never seen a butterfly on it. I purchased the plants from another of my favorite mail-order nurseries, Sunlight Gardens, Andersonville, Tennesee (www.sunlightgardens.com), which specializes in native plants of the southern Appalachians. Sunlight Gardens is a good source for some hard-to-find butterfly and hummingbird plants, such as Dutchman's Pipe for Pipevine Swallowtails, Pussytoes for American Ladies, Eastern Red Columbine (*Aquileqia canadensis*) and Goldflame Honeysuckle for hummingbirds, and many varieties of milkweed, coneflowers, liatris, and phlox.

Submission of Articles, Illustrations, and Season Records

We encourage all members to contribute to *Massachusetts Butterflies.* Articles, illustrations, butterfly field trip reports, garden reports, and book reviews are all welcome, and should be sent to the Editor by September 15 for the Fall issue, and January 15 for the Spring issue.

Send Fourth of July count results to Erik Nielsen by August 1 for inclusion in the Fall issue, and your season sightings and records to Erik by December 31 for inclusion in the Spring issue. Records may now be submitted via the online checklist and reporting form, which is available for download from http://www.massbutterflies.org/club-publications.asp or from http://www.massbutterflies.org/downloads/massbutterflies.xls

Massachusetts Butterflies Advisory Board