

Massachusetts Butterflies



Spring 2024, No. 62

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Sulphurs (*Colias* sp.), 9/17/23
Lincoln, MA, Linda Graetz

Cover photo: Common Ringlet (*Coenonympha tullia*),
6/15/23, Newburyport, MA, Bo Zarembo

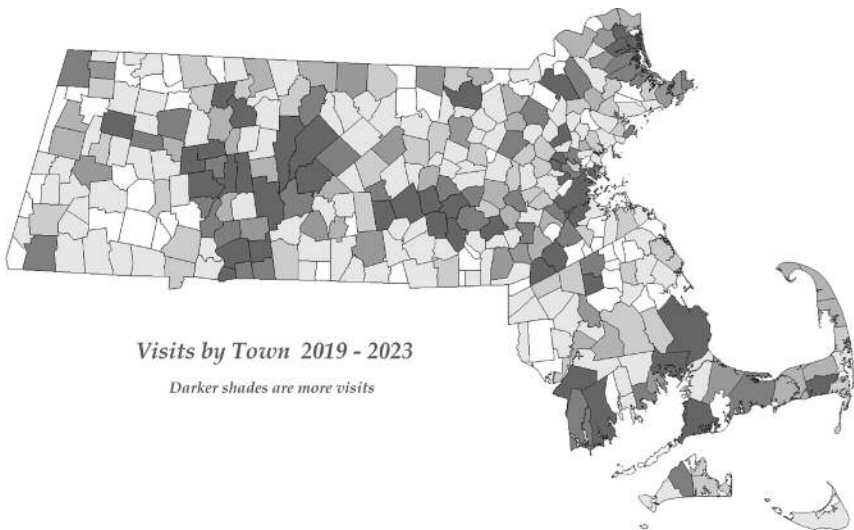
Butterfly Atlas Refresh

Garry Kessler and Michael Newton

In the late 1980s volunteers did the first systematic, state-wide survey of butterflies in North America. Following the five-year data collection period, species accounts and distribution maps were compiled and the first Massachusetts Butterfly Atlas was published by the Massachusetts Audubon Society.

As the Atlas surveys concluded, local butterfly enthusiasts formed the Massachusetts Butterfly Club and continued to collect records of butterflies throughout the state. The Club is now more than 30 years old with data spanning more than three decades. During that time, we've seen many changes in our environment reflected in our ever-changing butterfly populations.

The Atlas has not been updated since its first publication. The geographic distribution of many species has changed since the Atlas was first published. In fact, the list of butterflies resident in Massachusetts has also changed. It is time to update the Atlas.



For a map of the state that labels the towns and counties go to:
<https://www.doe.mass.edu/resources/countymap.pdf>

The Club has done a good job of recording butterfly sightings over the years. But many of us are in the habit of revisiting the same places year after year, and we don't always report common butterflies that we see. This Atlas refresh that we have begun is an opportunity to enhance our records. Make a point to get out into the field in 2024. Go to places both new and old and report what you find in the usual manner. That way, the new maps we are working on will have the best and most current data available.

Thanks to your efforts we will be able to show how butterfly populations have changed throughout our state over the last 30+ years.



Acadian Hairstreak (*Satyrium acadica*), Garry Kessler

Acadian Hairstreak Listing

Garry Kessler

The Acadian Hairstreak (*Satyrrium acadica*) is being added to the Massachusetts List of Endangered, Threatened, and Special Concern Species with the status of Threatened. This affords colonies of the butterfly and its habitat protection from human disturbance.

In 2021 and 2022 the Massachusetts Butterfly Club conducted State-wide surveys looking for Acadian Hairstreaks. The Acadian Hairstreak was once found in over 40 towns in Massachusetts and its range extended southward into Connecticut, Rhode Island, New York and beyond. Now the butterfly is uncommon or extirpated in southern New England and has been found in only two towns in Massachusetts. The reasons for the decline in population are complex including such factors as human disturbance, changes in climate and increasing impacts from animal browse such as white-tailed deer.

Acadian Hairstreaks are habitat specialists, preferring wet meadow environments. They are hosted on willows. Suitable habitat is common and wide spread throughout Massachusetts. Club members are encouraged to continue to look for Acadian Hairstreaks and report sightings as there may yet be undocumented colonies.

The Club thanks those who helped with this effort:

Bill Callahan	Erin Haugh	Dolores Price
Brian Cassie	Howard Hoople	Anne Reid
Jeremy Coleman	Gael Hurley	Mark Rosenstein
Danielle Desmarais	Garry Kessler	Dave Small
Cathy Dodd	Jake McCumber	Peter Trimble
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Tom Gagnon	Mike Nelson	
Andy Griffith	Michael Newton	
Lauren Griffith	Erik Nielson	



My Big Year

Mark Rosenstein

For the 2023 season, I decided to do a Massachusetts butterfly big year. That is an effort to see as many species as possible. I had been intrigued by the idea ever since reading about birders doing big years, typically for all of North America. That takes an incredible amount of time and money, but I thought a state-only butterfly big year would be approachable.

I often travel a lot, and my travel schedule would get in the way of doing a big year, since many species only fly for a short period. When the pandemic forced me to stay home, I tried to do a state butterfly big year in 2021. But I abandoned that effort about half-way through the year, because I felt guilty about the amount of gasoline I was burning driving across the state. By 2023 I had replaced my gasoline car with an all electric one. My travel has resumed somewhat, but I had no trips longer than 4 days planned between April and October of 2023.

From talking to avid butterflyers who have been watching them in Massachusetts for many years, I know that as recently as ten years ago, it didn't take heroic efforts to break 100 species in a year. I only started seriously looking for butterflies here about ten years ago, and in that time several species which were formerly easy to see had become difficult, with a few not seen in several years now. For instance, Hessel's Hairstreak has not been confirmed since 2015, nor Common Roadside Skipper. Some species have become rare in just the last few years, with Harris' Checkerspot and Acadian Hairstreak now only known from a few places.

I mostly used the Massachusetts Butterfly Club "Checklist of the Butterflies of Massachusetts" as my reference list. That list has 111 species on it, or 112 when you count the two subspecies of *Limenitis arthemis* as separate entries for White Admiral and Red-spotted Purple. I added a few species to this, rare southern strays that have only been recorded a few times but are listed in other MBC pub-

lications. I also added Northern Azure (see below). That put 120 species on my list. Surely I could manage to miss only 20 of these, right?

There are several taxonomic puzzles amongst our butterflies. These are still being debated, but here is what I used this year. For tiger swallowtails, I assumed they were all Eastern Tiger Swallowtails except for those at high altitude or in Western Mass before mid-July, where I checked field marks for Canadian Tiger Swallowtail. I assumed all crescents were Pearl Crescent and never checked to see if any were Northern Crescents. Azures are more complicated. Some club members refer to “form Lucia” of Spring Azure, and the Pelham list recognizes *Celastrina lucia* as “Northern Azure” so I adopted that. Early in the season, those with dusky gray in the center of the wing and gray margins are Northern Azure (*C. lucia*), those with more crisp markings are Spring Azure (*C. ladon*). By late May and June, Azures with fine black markings are probably ‘Cherry Gall’ Azure (*C. serotina*). More heavily marked ones in June and all after that are ‘Summer’ Azure (*C. neglecta*). This is an over simplification, but worked for quick field identification. For small dark skippers, I assumed they were Dun Skipper unless I got a good view with clear field marks pointing to Crossline, Northern Broken-dash, or Little Glassywing.

I kept myself organized with spreadsheets. One listed every target species (or subspecies), whether I had seen it, and whether I had gotten a photograph. I also noted the start and end of the flight period in the state here so that I could sort the spreadsheet to see what is currently flying that I had not seen. I also kept a spreadsheet recording how many of each species I saw on every hike I did. I have been keeping data like this every year for a while now, so I could easily look up when and where I saw various species in past years. I record the time spent in the field and how far I walked as well, to make the data more valuable for scientific analysis in the future.

My Google Maps account has favorites saved of many of the places

I go to look for butterflies. This is really helpful in planning each day's outing. If I am preparing to go across the state to search for a particular butterfly, I can at a glance see what other places are nearby or on my way that might be worth stopping at as well. And because some of these places do not have names or proper street addresses, I also have a list of butterfly sites and the nearest street address, so that I can enter that into my car navigation system to get me there.

Having mentioned these lists, I know that people will ask if I can share them. About 90% of the places I go are well known and I have no problem sharing. A few I was asked to keep confidential when I was told about them, are on private property, or I see that there is a vulnerable population of butterflies that could be wiped out by collectors. Those sites will be missing from any published lists.

I tried to get a photo of every species. My usual method is to photograph at least one of every species I see on every outing. Yes, that means I have many photos of Cabbage Whites and other common species. That keeps me in practice getting photos, and means that I don't forget to photograph common species. I post most of these to iNaturalist where I am very active both posting and identifying observations for others. See <https://www.inaturalist.org/observations/maractwin> for my contributions there.

I count birds and butterflies on every outing. I use the eBird phone app to record birds. I know that with my butterfly trips at mid-day, I am not seeing as many birds as I might. Yet by spending this much time in the field, I did come up with a good year list for my birds too. Part of the reason I always do an eBird list on butterfly walks is to use eBird to get the start time, duration and distance traveled to record with my butterfly observations. I have a butterfly counting app similar to eBird which I wrote myself. Part way through this year I finally got it to directly record the duration and distance traveled. It works pretty well, and one of these days I will polish a few rough edges and make it available for others.



Compton
Tortoiseshell
(*Nymphalis
vau-album*),
7/6/23,
Washington,
MA, Mark
Rosenstein

My basic plan for the year was to plan trips for the butterflies with short flight periods or specialized habitats, and hope that while doing that I would pick up all of the widespread species. One problem I ran into was that most of the butterflies flying before mid-summer had their flight period running about a week later than usual. On my first trip down to Myles Standish State Forest in Plymouth for elfins almost nothing was flying, but a week later I got what I was expecting. That happened on several trips, as I was reluctant to just assume they were flying late and risk missing something.

My year started in April, where I found Mourning Cloaks and Cabbage Whites, but failed to turn up an Eastern Comma or Question Mark until July. My first trip to see more than two species of butterfly was April 25, at Burma Road in Milton where I added Henry's Elfin and two different Azures to my list. On May 7 at Myles Standish SF I added three species of Elfins and two Duskywings. The next day I made my first trip out to western Mass, where I added Mustard White at Darey Wildlife Management Area in Lenox, but nothing else new. I ticked off species one at a time as I sought out the elfins and duskywings that fly early in the season. There's a spot in north central Mass where Bog Elfin is usually reliable, yet I made 3 different trips there before I saw it, and it was only a brief view and I failed to get a photo.

The first Massachusetts Butterfly Club walk I joined was to Dinosaur Footprints and Mount Tom in Holyoke on May 19, where I added Juniper Hairstreak and a couple of skippers, as well as visiting with friends I hadn't seen since the previous year.

By May 22 I had already made four trips to Horn Pond Mountain in Woburn, a favorite site with a lot of diversity that is not far from home. I was turning up very little there, which was worrisome. The electric company had done a lot of work on the power lines there the last two years, and chewed up a lot of the habitat. I thought it would bounce back, but several species that used to be reliable there I haven't seen since 2020.

Late May is Hessel's Hairstreak season. This is a species I have never seen, though I've spent the past few years searching, on my own and as part of the MBC effort organized by Danielle Desmarais. I went to Ponkapoag Bog in Canton, formerly the best place to see Hessel's, and discovered that the boardwalk is now in such bad shape that even in knee-high boots I couldn't make it out to the best habitat. I should point out that technically I have seen Hessel's: two years previously, at Ponkapoag, I was hanging out at the end of the boardwalk with another experienced butterflyer, when a lycaenid passed about ten feet over our heads without stopping. I sure couldn't defend an identification of that one, but given the date and location, Hessel's was the only thing likely to have been flying. I also visited a couple of other Black Spruce sites as well this summer, including an invitation outing to a restricted property in Foxboro that was known to host the butterfly 20 years ago, but without luck now. As we reached mid-June, Hessel's was the first species on my list I marked as "not seen" this year.

I drove west again in late May for Cobweb Skipper in Montague, and while in the area checked a couple of wetlands for some specialist skippers that mostly fly later, and they weren't around yet. And then a couple of days later went west again for the annual butterfly club trip up Mount Greylock to see Early Hairstreaks. That club outing was successful, and I also picked up Canadian

Tiger Swallowtail and West Virginia White (completing the resident whites), but not Pepper & Salt Skipper which is usually seen on that walk. In a surprise we had two Compton's Tortoiseshells that day, both very worn, and I was glad to get that species that I wasn't counting on. Nothing was flying at Eugene Moran Wildlife Management Area in Windsor that day so I failed to pick up Arctic Skipper.

By now I should have seen both Northern and Southern Cloudy-wings and Indian Skipper, all of which were formerly common on Horn Pond Mountain. A third trip down to Myles Standish got me Indian Skipper and completed the early season Duskywings (Juvenal's, Sleepy, Dreamy, and Wild Indigo). I hadn't expected to get Persius Duskywing, even though its last confirmed sighting was at Myles Standish. Persius joined Hessel's on my "not seen" list by mid-June. Broad Meadow Brook in Worcester in the past has also been good for the Cloudy-wings, but I failed to turn them up there while picking up Hoary Edge.

The first two weeks in June I visited 7 different sites in Central Mass looking for Harris' Checkerspot. I didn't find it in its former stronghold of Broad Meadow Brook nor under various power lines in Shrewsbury, Worcester, or Grafton. Someone I didn't know posted a photo of one to iNaturalist from an obscured location in Fitchburg. I messaged him to ask if he was willing to divulge the location. When he responded the next day, he was helpful, describing where he went to a difficult-to-access powerline cut and mentioning he had just run into a mutual friend from the butterfly club. I bushwacked there the next day, and didn't find anything promising. I continued to check out historic sites for Harris' and likely spots nearby found by studying satellite maps. The same iNat user messaged me a week later when he found another Harris at a different spot in Leominster. I shared this information with Garry Kessler, and the next morning we both went there and with Garry's help I finally managed to see one, the first I had encountered in four years. During this time I also went back to Eugene Moran WMA again and picked up Arctic Skipper and Pepper & Salt

Skipper. I am generally pretty careful not to trespass while doing my nature hikes. I was in a power line corridor in Fitchburg when a local accosted me, accusing me of being in his yard. I pointed out that I was staying in the power line right-of-way and not in his yard which started 25 feet away. He claimed to own this land too and was renting it to the electric company. I haven't been able to learn if there was any truth to his claims, but I was apologetic and headed back to my car (I was already headed back anyway).

On June 21 I made my first trip of the season to October Mountain State Forest in Washington, where I added Atlantis Fritillary, White Admiral, and some skippers. I would keep going back because it is a good place to see some of the rarer wetland skippers and satyrs. And I kept hitting spots in metro Boston that should have had Northern and Southern Cloudywing, but couldn't find them. I stopped by the lower Mystic Lake in Medford and easily found a Harvester to check that box. A visit to Burma Rd in Milton turned up plenty of Appalachian Browns as it usually does at this time of year.

The first week in July is usually a time with a lot of butterflies and Fourth of July butterfly counts. During this period I used to see bushes with dozens of hairstreaks of four or five species. I only had one trip this year that had more than two species or into double-digits in the count of individuals. I slowly added Edwards,

Eyed Brown
(*Satyrodes eurydice*),
7/13/23,
Ipswich, MA,
Mark
Rosenstein



Striped, Banded, and Coral Hairstreaks. I got invited to a special trip to restricted areas in Joint Base Cape Cod where we saw dozens of individuals of six species of Hairstreak, including Acadian (the target of that trip). I was hoping for Oak Hairstreak which is often seen there, but we didn't find any on this trip. Another participant on this trip had Northern Cloudywing, which I only saw flying away—my least satisfying sighting of the year. I missed participating in the Concord butterfly count as I usually do because it was the same day as the JBCC trip. I also missed the Essex County butterfly count because of a non-naturalist commitment, so I didn't do any Fourth of July counts this year. In this period I also picked up Bog Copper at Tully Dam in Royalston and Dion Skipper at another site in the area.

I made two trips to October Mountain SF in early July. The first turned out to be cloudy and cool (it wasn't when I left home, but after the two and a half hour drive, I discovered I should have stayed home), and not much was flying. A few days later I tried again, and got my only lifer of the season: Two-spotted Skipper. This rare butterfly is a wetlands specialist I had been looking for over several years. I was told where to look for it by a butterfly club member, but had been unlucky actually finding it over many attempts the last few years. This time I not only saw one, I had three. That trip had all three Fritillaries (Great Spangled, Aphrodite, and Atlantis), two fresh cooperative Compton's Tortoiseshells, Northern Pearly-eye, and many other butterflies. This is why I like the site, even though it's so far from home.

I made my first trip of the year to Bartholomew's Cobble in Sheffield during this time too. And there I picked up a new state butterfly for me, Hackberry Emperor, and saw a few Hickory Hairstreaks. During that trip I saw my first Common Sootywing of the year and didn't think much of it, but that turned out to be the only one I saw this year. I was hoping for American Snout, Gray Comma, and Meadow Fritillary there too, but those proved illusive on all three of my trips to Bart's Cobble this year. My second Bart's trip was a butterfly club walk, and after not finding any rarities, I stopped by

Forest Park in Springfield on my way home, hoping I might find Tawny Emperor there. While I didn't see the emperor, I did find a White-M Hairstreak—my second of the year, but the first wasn't cooperative for a photo.

I was now halfway through the season, and about 80% of the way through my butterfly list. It wasn't until July 17 at the Barber Reservation in Sherborn that I saw any Silver-bordered Fritillaries, having visited several other likely spots without luck. And none of those spots turned up Bronze Copper as they sometimes do. Crane Swamp Trail in Marlboro provided Broad-winged Skippers after striking out on those at a few places closer to home. Eyed Brown was at both Appleton Farm in Ipswich and on the Crane Swamp Trail. While I failed to turn up any Bronze Coppers in July, I wasn't worried because their September flight was usually more reliable. I made two trips out to Mountain Meadow Preserve in Williamstown hoping for Meadow Fritillary without luck. As long as I was in the area, I drove to the summit of Mount Greylock each of these days, to check for Milbert's Tortoiseshell.

In August I started focusing on what I had missed in the expected species, as well as visiting sites along the coast that are the most likely for southern strays. I had to admit that I had missed Southern Cloudywing, the only supposed common species I missed this year, and had only the non-verifiable flyaway Northern Cloudywing. Yes, I wrote off Common Roadside Skipper and Oak Hairstreak, but the skipper hasn't been seen in several years and the hairstreak isn't reported every year. I got Horace's Duskywing at Francis Crane WMA in Falmouth, completing the expected Duskywings.

The southern skippers started arriving early. By mid-August Sachems were the most numerous skipper at most sites I visited. A butterfly club member tipped me off to a Fiery Skipper seen in Concord; I decided to chase it even though the species is often common in the fall. This was a good move, as that was the only one I saw this year. There were scattered reports of Ocola Skipper, but

I wasn't seeing them at the usual sites (including Sylvan Nursery in Westport where I see them most years) or a day later at places others had reported them. I finally got Ocola in mid-September at the Boston Nature Center in Mattapan.

There are also a few annual species that don't start flying until late summer. My first trip to Nasketucket Bay State Reservation in Mattapoisett was too early to get Red-banded Hairstreak; I had to go back a week later for them. I visited several likely spots for Giant Swallowtail without luck. Only got that one on my last trip out to Bart's Cobble. I made several trips to the Arnold Arboretum looking for Pipevine Swallowtails, sometimes seen there because of extensive pipevines around their administration building. I didn't get that one until a friend in Wareham told me he had one visiting his yard and it stuck around for the time it took me to drive there. That completed the swallowtails.

In September I got Bronze Copper during their second brood, right on the dike trail of Great Meadows NWR in Concord. I found only a single Leonard's Skipper at Francis Crane WMA in Falmouth, and good thing I found it there. The other place I usually see them, Wellfleet Bay WS, didn't have any when I was on the outer Cape a week later. While in Provincetown for a non-naturalist event that weekend I had two Cloudless Sulphurs fly by without stopping, and I also had passes like this down in Westport, but never got a photo. I found my first Common Buckeye of the year at Allen's Pond WR in Westport. Hopefully it is just an off year for this beautiful southern butterfly, rather than the end of their presence in the state.

I continued going into the field in late September and early October, finding a second Common Buckeye and several Ocola Skippers, but no new species. Long-tailed Skipper was the mostly likely addition at this point, and I heard reports of two of them from earlier in the season, but just couldn't find one myself. At this time of year, the most common butterflies at most sites are Cabbage White and the Sulphurs, which presents the challenge of looking critically at each to make sure I am not overlooking a stray Checkered White

or Little Yellow. Alas, I didn't find any of those, nor did I hear of anyone else sighting one this year.

I ended the year having exactly hit my goal of one hundred species. But that includes two that I'm not happy about. That fly-away Northern Cloudywing that I did not see well enough to identify, though it was clearly seen by an expert I trust. Also that Bog Elfin back in June, seen in the right place at the right time, but my sighting was less than ideal with no photo. I can't be 100% sure it wasn't an Eastern Pine Elfin. The other species I failed to photograph was Cloudless Sulphur. But that one I am very confident I saw, and those familiar with the species know that it seldom stops for photos.

By The Numbers

I spent a lot more time on this than I thought I would. I logged 128 hikes to accumulate 9,036 minutes (over 6 days) hiking 171 miles. From my home in metro Boston, I drove west past Worcester 17 times. I was in the field most weekdays when the weather was good, when possible scheduling other things I needed to do only a few days out when the forecast was for rain. I literally hit all four corners of the state with Williamstown, Sheffield, West Newbury, and Westport. Here's a breakdown of the places I visited by property owner.

The site where I recorded the most species per mile walked was Lime Kiln Farm in Sheffield, with 15/mi. The site with the most individuals observed per mile walked as Mountain Meadow Preserve in Williamstown with 134/mi. The most new butterflies I got for my list on one hike was five, at Montague Sand Plain in Montague. I recorded 4,250 individual butterflies on my hikes this year.

I got one lifer this year: Two-spotted Skipper. I also got a new state butterfly: Hackberry Emperor. There were only a few butterflies that I only saw a single individual of: Giant & Pipevine Swal-

lowtails, Acadian Hairstreak, Frosted Elfin, Hackberry Emperor, Northern Cloudywing, Common Sootywing, Fiery Skipper, Leonard's Skipper. Among the species I did not see were two that I had expected to get: Variegated Fritillary and Southern Cloudywing. Among the others I missed were a few that were reported this year by other observers: Oak Hairstreak, Meadow Fritillary, Long-tailed Skipper, and Variegated Fritillary.

Given how much effort was involved, I probably won't try this again. I am curious if this was an off year, or if more species becoming hard to find is a trend. I fear that populations are continuing to dwindle, and it will become more and more difficult for someone to see one hundred butterfly species in Massachusetts. It will take time to determine that. I like having a challenge, but will pick something easier next time, like visiting every MassAudubon and Trustees of Reservations property in the state.



White M Hairstreak (*Parrhasius m-album*),
7/30/23, Springfield, MA, Mark Rosenstein



2023 Season Summary and Records

Mark Fairbrother

The summer of 2023 was again a hot summer, with days over 100°, and many in the 90's. Although the season started off fairly dry, within a couple weeks in July many went from saying "Wow, we got an inch of rain last night" to "Alright, we only got an inch of rain last night last night". Counts were disrupted, lots of roads in the western counties were washed out, and it rained a lot on weekends, usually the time when much butterflying takes place.

The season kicked off with a Mourning Cloak in Ashland on February 16, then there was nothing else until March 18 when the first Cabbage White was reported from Woburn. The first Berkshire Co. report (Mourning Cloak) was nearly a month earlier in 2023, March 29 from Egremont. In the Fall, the last really inland report was a Clouded Sulphur on October 11. There was only one November report, a Cabbage White on the 5th from Holliston, which meant it was also the last sighting of the year. Inland, the hot spots were again the Fannie Stebbins refuge in Longmeadow, the Sheffield area, and the Montague Plains. In the east, the Worcester/Shrewsbury area, the Newbury area, Woburn, and Westport/Dartmouth attracted much attention, especially in the second half of the year.

Just over 4,300 records were submitted for 2023, continuing the downward trend of recent years: 2022 (5,200) 2021 (5,600), 2020 (7,500), or 2019 (8,800). All comments this reporter heard said that once again this year was the worst they'd ever experienced. Each year, observers in MA find the same 102 or so species, and in the end, it comes down to a handful of borderline species to determine our final total for the year. In 2023 we made it to 103 species. In 2023, Acadian and Hessel's Hairstreak, and Gray Comma were unreported, while Hickory Hairstreak, Oak Hairstreak, Early Hairstreak, Harris Checkerspot, Eyed Brown, Fiery Skipper and Dion Skipper had only one report each. Several more species were in the 2-4 reports range that didn't usually end up there. There was no pronounced influx of southern species into our region in the spring and summer, and no coastal pile up of and kind of south-bound migrants at all in the fall.

If you post sightings on-line (MassLep and Facebook) during the season and then send them to me in a group of records post-season, please

indicate which records, if any, were posted earlier, especially on MassLep, and which were not. People submit reports one way or another; either by posting them on the MassLep butterfly list server, sending them directly to me, or posting their sightings on the Facebook page. I'd prefer receiving them in that order, but of course I'll take them anyway I can get them. Regardless of how observers submit records, please remember to state clearly the date of the actual observation, how many (if more than one) and just where they were seen, keeping in mind I and other readers may not be as familiar with the locations given. Examples of what is submitted each year include "that I saw last Saturday...", there were "lots" of them, and locations given that I have to go to Google to figure out what town we're talking about. Please take a moment to think of these things before hitting the "Send" button. Thank you. Unfortunately, it's not possible to fit more than a fraction of the total records in the available space. This does not mean that they aren't important; all reported butterflies are logged in the database and help to give a picture of the health of the various butterfly populations in Massachusetts or beyond. Every year we field requests from researchers to use our database of records, for any number of studies. In deciding which records to include in the report and keeping in mind the space restrictions we have, I take the earliest report and the latest, the highest number reported, then try to pick records based on location across the state and throughout the season, and finally by observer. I do give small preference to records from new contributors and/or new locations and after that spread credit around generally. After that I refer back to location and time.

SWALLOWTAILS

Reports for Giant Swallowtail ticked up to 15, from mid-August to mid-September, with all reports of single individuals spread widely across the state., There were six reports of Pipevine Swallowtail, five from the southeast and one from Whately, all from mid-July into early October. Black Swallowtail was around mid-April through mid-October, again generally in ones and twos away from 4J counts. Eastern Tiger had a decent year, with the first reported in mid-April in Peabody, and the last on October 27 in Newburyport. Reports of Canadian Swallowtail were mostly from May to early July. It would be interesting to know the genetic history of CTSW that hung around in West Bridgewater through the end of August. Spicebush Swallowtail reports were down considerably in 2023, stretching from May 5th in Longmeadow until October 1st in Belchertown, with the vast majority being of single individuals.

WHITES AND SULPHURS

Cabbage White reports fell back again in 2023, to 534. Three reports of West Virginia White were received, from Mt. Greylock and Lee, while Mustard White reappeared with 4 sightings, all from the Berkshires. The first Clouded Sulphur report was for May 6 in Holliston, but the species kept going until November 7 in Rockport. There were only four reports of Orange Sulphur before July 1st, three of which were from the east. From then on the species was reported regularly through October before the last sighting from Saugus on November 12. Cloudless Sulphur was reported twice in 2023, from Wareham in early August and Dartmouth in late September.

GOSSAMER-WINGS

All but one Harvester reports were from either the Mystic Lakes or Fannie Stebbins refuge in Longmeadow. The odd Harvester out was from Washington on June 19th. American Copper reports extended from May 10th to November 11th in Andover. The high count was 130 from the Truro 4J count. The three Bog Copper reports were from Wendell, Centerville, and Truro, all in early July. Four of five Bronze Copper reports were mostly from annual locations in Longmeadow and the Concord/Wayland area. The odd report out here was from West Newbury. The reports occurred from July 4 to October 22nd. There were no reports of Acadian Hairstreak, and the five Coral Hairstreak records reached from Pittsfield to Truro on the Cape. All were in early July. Edwards Hairstreak was reported four times from Plymouth to Truro, with a high count of 18 on the Falmouth 4J count. Striped Hairstreak was reported twice: once each from the Central Berkshire 4J and once from the Truro 4J.

The more eastern-occurring, *Baptisia*-feeding Frosted Elfin emerged in mid-April and were seen into late May, from Grafton east, while the lupine-feeders in the CRV again went unreported in 2023. Bog Elfin went unreported, if not unseen, in 2023. Brown Elfin were on the wing from mid-April through mid-June, with reports from the Montague Plains to Plymouth, and Plymouth again posted the best numbers through the flight period. Six Henry's Elfin reports were scattered from Andover to Falmouth. Hoary Elfin reports (5) were, as usual, limited to Plymouth, and MV.

Red-banded Hairstreak reports were down, and mostly from the south-

east and Cape, except for one in Arlington. Only one report of Hickory Hairstreak came in, from Sheffield in mid-July. Five White-M Hairstreak reports were received: three from Mattapoisett and one each from Springfield and Arlington. Hessel's Hairstreak was unreported, and Juniper Hairstreak was reported only four times, once in Holyoke and three times from Horn Pond Mountain in Woburn. Gray Hairstreaks started appearing in late March in West Tisbury, and lasted until late October in Hingham, with all but 5 of the 38 sightings occurring from Worcester Co. eastward. The species high count was 8 from Dunstable on October 1. Early Hairstreak again had only one sighting in 2023, from North Adams. Spring Azure seemed about normal, being heavily reported from April 8 through the end of May, with a high count of 100 from Myles Standish in Plymouth on May 6th. No Cherry Gall Azure report came in in 2023. Silvery Blue reports were again very low, with one from North Adams and the rest from Worcester County eastward.

BRUSHFOOTED BUTTERFLIES

Variegated Fritillary was reported twice, with singles in Ludlow and Barnstable. Great Spangled Fritillary flew from mid-June in Southwick into early October in Wilbraham, with usually light numbers except on western 4J counts, with counts of 38 (So. Berk), 65 (Cen. Franklin), 77 (Cen. Berk), and 43 (Northampton), but was absent from the southeast and Cape. Aphrodite Fritillary reports in 2023 plunged to five, from Worcester Co. west to Williamsburg. In 2023 there were five reports of Atlantis Fritillary, all from the Berkshire hills. Six reports of Silver-bordered Fritillary were scattered across the state from Rockport to the central Berkshires. Only two reports of Meadow Fritillary were received in 2023, both from the Berkshires. Harris' Checkerspot, a species I can recall finding in numerous locations from Winchendon to Ashfield in the 90's, was reported only once, from Sheffield in late July. The majority of the 25 Baltimore Checkerspot reports were from east of the CRV, with the western counts from the Berkshires and the CRV.

Question Mark was reported a mere 8 times, and only from early July to mid-October, mostly from the western half of the state. There were no reports for Gray Comma, while six Compton Tortoiseshell reports came in, all but one of which were from the western hills, from March 27th through October 1st. Mourning Cloak was first found on the wing on February 16 in Ashland, and finally on October 22 in Groton.

(cont'd p 25)

Question Mark (*Polygonia interrogationis*)
Development, West Bridgewater, MA
Photos (and article, p.41) by Don Adams



6/17/23



6/20/23



6/27/23



7/1/23



7/8/23



7/13/23



Eastern Tiger
Swallowtail
(*Papilio
glaucus*),
5/26/23,
Boylston,
MA, Dawn
Vesey



Gray Hairstreak (*Strymon melinus*),
8/27/23, Concord, MA, Linda Graetz



Peck's Skipper (*Polites peckius*),
8/23/23, Arlington, MA, Peter Loshin



Red-banded
Hairstreak
(*Calycopis
cecrops*),
8/23/23, Mat-
tapoisett, MA,
Garry Kessler



Eight-spotted Forester moth
(*Alypia octomaculata*), 5/19/23,
Holyoke, MA, Garry Kessler



Dion Skipper (*Euphyes dion*), 7/17/23,
Washington, MA, Gael Hurley



Red-spotted
Admiral
(*Limenitis
arthemis
astyanax*),
8/24/23,
Plymouth, MA,
Garry Kessler

Silver-spotted
Skipper
(*Epargyreus
clarus*),
8/29/23,
Arlington, MA,
Peter Loshin





Snowberry Clearwing moth
(*Hemaris diffinis*), 7/28/23,
Belmont, MA, Linda Graetz



Arctic Skipper (*Carterocephalus
palaemon*), 6/9/23,
Washington, MA, Gael Hurley

Monarch
(*Danaus plexippus*),
7/16/23,
Harwich, MA,
Stanley Selkow



MBC field trip to Andrew's Greenhouse, 8/5/23, Amherst, MA, Karl Barry.

From left to right: Lura Bieda, Bob Bieda, Betsy Higgins, Calvin Yang,
Elise Barry, Harvey Allen (trip leader), Scott MacAllister, Betty, Frank Mitchell,
Marcia Merithew, Steve Moore, Tom Gagnon, Barbara Volkle, Brian, Ann Maria

Seventy-three of the ninety records were from February through the end of May. Once again in 2023 neither of the Ladies had large years. We had 126 reports of American Ladies from April 9 in West Tisbury through November 7th in Rockport, across the state but for the most part in small numbers, with no fall uptick for migration. Painted Ladies were reported 23 times, in low numbers, from May 31 (Woburn) through October 28 (Dartmouth), with absolutely no Fall surge. Com. Buckeye reports plummeted to only three, with one each from Southwick, Sharon and Dartmouth.

Viceroy was around in the usual places all across the state and in decent numbers from late May to late October, while Hackberry Emperor was reported only twice, both from Sheffield in late June and mid-July. Tawny Emperor went unreported in 2023. Northern Pearly-eye was only reported four times, three from the Berkshires and once from No. Worcester Co. Appalachian Brown was reported nineteen times from late June (Milton) through early September (Longmeadow). The best numbers were from the Concord 4J (23), No. Worcester Co. (11), and Truro (20). Eyed Brown had only one report, from an annual site in Gill. Little Wood-Satyr flew from mid-May through early August, with a high count of 30 from the Truro 4J. Com. Ringlet was well reported across the state from mid-May until early-October, with a high count of 100 from Stockbridge in early June, and Common Wood-Nymph reports were down, starting on July 4 and continuing through early September. Although the Cen. Berk. 4J had a healthy 147, most reports were far smaller. I thought it was an awful year for CWNy. Monarch reports started on April 13 in Yarmouth and continued to October 29 in Oak Bluffs. The 60 reported from Dartmouth was far and away the highest reported count all season. There was no Fall buildup of any kind. Again in 2023 there was no Fall push or build up along the coast or anywhere else.

SKIPPERS

Reports of Hoary Edge again totaled two, with one from Broad Meadow Brook in Worcester and one from West Brookfield. Southern Cloudywing was reported five times, with one report from Southwick WMA and the rest from Worcester to Falmouth, and Northern Cloudywing was reported only twice, both from Worcester's BMB in mid-June. Juvenal's Duskywings were reported 24 times from early May through late July, again from the CRV eastward. Dreamy Duskywing reports doubled from 2 to 4 in 2023, with one from the Montague Plains and the rest from

Worcester Co. Sleepy Duskywing was again reported only four times, all from Myles Standish SF, with a high count of 20 from early May. Wild Indigo Duskywing was reported from mid-May (Lenox), to early October (Lancaster), but most reports from the CRV eastward. The four reports of Common Sootywing were scattered from Phillipston to Sheffield. Least Skipper reports were about normal, with the high count of 50 from Middleborough on June 21, midsummer day.

Fiery Skipper was only reported once, from Concord in mid-August. Again in 2023, only two reports of Leonard's Skipper (Arlington and Falmouth), and Cobweb Skipper (Montague Plains) were received. Seven Indian Skipper reports ranged from Newburyport to Montague Plains, and within a narrow window of May 21 to May 31. Peck's Skipper sightings were much tilted towards the eastern half of the state with only fifteen of the 94 sightings from the Quabbin west, but on the other hand, the 67 found on the Cen. Berk. Co. count were far and away the highest total reported. Long Dash was reported from mid-May (Grafton), into mid-July, with four presumed second brood records in from mid-July to early October (Belmont)! Zabulon Skipper reports dropped from 158 in 2022 to 129, but Hobomok Skipper reports also dropped, from 19 to only six. Although the species occurs across the state, of 32 total Broad-winged Skipper reports, in the west in 2023 they were only found in the Springfield-Longmeadow area. Dion Skipper was only reported once in 2023, from Brookfield of all places, complete with a good photo! Two-spotted Skipper had two records, both from the Berkshires, while six Pepper and Salt Skipper reports were from Worcester Co. west to Pittsfield. Twenty-eight Sachem reports stretched from Acushnet (Jul 23) to Oak Bluffs (Oct 29) and were all east and south of Worcester Co. Ocola Skipper reports (8) were located from Northampton and Newbury to Wareham.

Abbreviations: AP-Allen's Pond; BFD-Barre Falls Dam; BMB-Broad Meadow Brook, CA-Conservation Area; CG-Community Gardens; CRP-Charles River Peninsula; CRV-Connecticut River Valley; CST-Crane Swamp Trail; EQLT-East Quabbin Land Trust; F&G-Fish & Game; FPB-Fort Pond Brook; FS-Fannie Stebbins Wildlife Sanctuary; GBH-Great Blue Hill; GM-Great Meadows NWR; GITW-Garden in the Woods; HPM-Horn Pond Mountain; IBA-Important Bird Area; IRP-Ipswich River Park; IRWS-Ipswich River Wildlife Sanctuary; LA-Larz Anderson Park; LPWS-Long Pasture Wildlife Sanctuary; MAS-Mass Audubon Sanctuary; MCRT-Massachusetts Central Rail Trail; MB-WMA-Martin Burns WMA; MHF-Moose Hill Farm; ML-Mystic Lakes; MMP-Mountain Meadow Preserve; MPRA-Mill Pond Recreational Area; MSF-Myles Standish State Forest; MV-Martha's Vineyard; NABA 4JC-North American Butterfly Association 4th of July Count; NAC-Nine Acre Corner; NCG-Northampton Community Gardens; NCM-North Common Meadows TTOR; NP-Newburyport; NRT-Norwottuck Rail Trail; NWR-National Wildlife Refuge; PL-Power Line; PRNWR-Parker River NWR; Res.-Reservoir or Reservation; RM-Rumney Marsh; S-C - Stevens-Coolidge TTOR; SF-State Forest; SP-State Park; TTOR-The Trustees of Reservations; WMA-Wildlife Management Area; WMWS-Wachusett Meadow Wildlife Sanctuary; WRR-Waskosim Rock Res.

Pipevine Swallowtail

7/17 1 Northampton NABA - Mark Fairbrother *et al.*

7/20 1 Saugus - Kristi Talagan

8/21 1 Wareham - Andrew Griffith

8/23 1 Wareham - Andrew Griffith

9/14 1 Lakeville - Andrew Griffith

10/5 1 Wareham - Andrew Griffith

Black Swallowtail

4/13 1 Arlington - Lisa Wolfe

5/6 1 Bolton Flats, Lancaster - Tom Murray

5/17 1 Wilbraham, white cedar swamp - Danielle Desmarais

5/23 2 Hardwick - Mark Lynch, Sheila Carroll

5/28 1 Fall River - Doug Hlousek

6/10 4 Hardwick, Mandell Hill EQLT - Wendy Howes, Allan Rawle

6/30 1 Adams Farm, W. Bridgewater - Don Adams

7/8 21 N Worcester NABA - Wendy Howes *et al.*

7/13 1 Old Town Hill, Newbury - Bo Zaremba

7/17 19 Northampton NABA - Mark Fairbrother *et al.*

7/23 3 MHF, Sharon - Eric Nielsen

7/31 4 Surrenden Farm, Groton - Tom Murray

8/6 1 Williamsburg Flower Hill Farm - Carol Duke

8/13 2 Arlington Heights - Lisa Wolfe

8/23 1 Georgetown Com. Gardens - Marjorie Watson

9/2 3 FS WMA, Longmeadow - Michele Moore

9/3 1 Florence Community Gardens - Mark Fairbrother

9/5 4 Middleton Community Garden - Marjorie Watson

9/14 1 Lakeville - Andrew Griffith

10/1 1 Mount Wachusett, Princeton - Steve Moore, Barbara Volkle

10/14 1 Middleton Community Garden - Marjorie Watson

Giant Swallowtail

8/12 1 West Whately - Joe Wicinski

8/13 1 Arlington Heights - Lisa Wolfe

8/14 1 Adams Farm, W. Bridgewater - Don Adams

8/21 1 Arlington Heights - Peter Loshin

8/22 1 Sutton - Lisa Levine

8/23 1 Marion - Andrew Griffith

8/24 1 Arlington Heights - Peter Loshin

8/26 1 Arlington Heights - Peter Loshin

8/26 1 Hudson - Linda Strzepek

8/29 1 Arlington Heights - Peter Loshin

8/29 1 West Whately - Bill Benner

8/31 1 Arlington Heights - Lisa Wolfe

9/11 1 Williamstown - Pam Weatherbee

Tiger Swallowtail (ssp.)

4/28 1 Westborough - Garry & Annie Kessler

5/9 1 Lancaster - Dawn Vesey

5/14 2 Adams Farm, W. Bridgewater - Don Adams

5/21 4 Parker Preserve, Grafton - Dolores Price, Marvin St Onge

5/28 8 South Royalston - Dave Small

6/28 1 Arlington Heights - Lisa Wolfe

7/18 1 Fall River - Doug Hlousek

7/29 1 Sandwich, Greenbrier - Peter Johnson-Staub

8/6 4 Arlington Heights - Lisa Wolfe

8/14 2 Wilbraham - Danielle Desmarais

8/22 6 Adams Farm, W. Bridgewater - Don Adams

9/17 1 Grafton - Dolores Price, Marvin St. Onge

10/4 1 Belmont - Fred Bouchard

Eastern Tiger Swallowtail

4/13 1 Stockbridge - Jonathan Pierce

4/13 1 Peabody - Andrea Bean

5/6 2 Belchertown - Steve Moore, Barbara Volkle

5/13 3 High Head Bike Path, Truro - Fred Bouchard

5/18 9 Quabog IBA, the Brookfields - Mark Lynch, Sheila Carroll

5/23 8 Hardwick - Mark Lynch, Sheila Carroll

5/29 1 Herrick Rd, Boxford - Danielle Desmarais

6/10 5 Hardwick, Mandell Hill EQLT - Wendy Howes, Allan Rawle

6/11 12 Hubbardston - Mark Lynch, Sheila Carroll

6/25 10 Plainfield - Mark Fairbrother

7/8 14 N Worcester NABA - Wendy Howes *et al.*

7/9 13 C Berkshire NABA - Tom Tynning *et al.*

7/17 12 Northampton NABA - Mark Fairbrother *et al.*

7/23 1 Belmont - Fred Bouchard

7/31 1 Middleborough - Sandra Brangan

8/6 3 G43 Quabbin - Wendy Howes, Alan Rawle

8/13 1 Ludlow - Moe O'Connor

8/21 11 Bolton Flats, Lancaster - Tom Murray

8/27 5 BMB WS, Worcester - MBC Trip

9/2 1 Sylvan Nursery, Dartmouth - MBC Trip

9/3 1 Ware River Watershed - Mark Lynch, Sheila Carroll

9/9 1 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith *et al.*

10/27 1 Zaremba Yard, NP - Bo Zaremba

Canadian Tiger Swallowtail

- 5/11 2 Ware River Watershed - Mark Lynch, Sheila Carroll
6/1 1 Adams Farm, W. Bridgewater - Don Adams
6/21 10 October Mountain SF, Washington - Mark Rosenstein
7/9 2 C Berkshire NABA - Tom Tynning *et al.*
7/23 3 Adams Farm, W. Bridgewater - Don Adams
8/1 2 Adams Farm, W. Bridgewater - Don Adams
9/1 1 Adams Farm, W. Bridgewater - Don Adams

Spicebush Swallowtail

- 5/5 1 Longmeadow - Erica Schwalm
5/11 1 Westborough WMA - Steve Moore, Barbara Volkle
5/29 1 33 Mechanic Street, Upton - Tom Dodd
6/11 1 Southwick WMA - Michele Moore
6/26 1 Burma Road, Milton - Mark Rosenstein
7/1 5 Falmouth NABA - Andrew Griffith *et al.*
7/9 14 Truro NABA - Mark Faherty *et al.*
7/17 5 Northampton NABA - Mark Fairbrother *et al.*
7/24 2 Adams Farm, W. Bridgewater - Don Adams
7/31 1 Marblehead Neck - Karen Haley
8/5 1 Townsend - Gary Sirois
8/13 6 MHF, Sharon - Erik Nielsen
8/20 1 Adams Farm, W. Bridgewater - Don Adams
8/24 1 Natick - Glenn Long
8/31 1 Arlington Heights - Lisa Wolfe
9/5 1 Franklin Park, Boston - Stephen Baird
9/9 1 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith *et al.*
10/1 1 Belchertown - Elise Barry

Mustard White

- 5/12 5 Housatonic WMA, Lenox - Gael Hurley
5/26 6 Berkshire County - Andrew Griffith
7/9 3 C Berkshire NABA - Tom Tynning *et al.*
7/17 1 Windsor - Todd
8/16 1 Lenox - Gael Hurley
10/4 1 Housatonic WMA, Lenox - Gael Hurley

West Virginia White

- 4/21 5 Lee - Gael Hurley
5/6 13 Mt. Greylock State Forest, Williamstown - Marcia Merithew
5/27 6 North Adams, Mt. Greylock State Res. - Andrew Griffith

Cabbage White

- 3/18 1 Woburn - Joe Malachowski
4/4 3 Adams Farm, W. Bridgewater - Don Adams

- 4/13 6 Holliston - Richard Hildreth
4/14 1 Greenfield - Mark Fairbrother
4/21 6 Adams Farm, W. Bridgewater - Don Adams
4/29 10 Holliston - Richard Hildreth
5/6 10 Medfield - Walt Webb
5/8 2 Athol - Dave Small
5/10 20 Middleborough - Andrew Griffith
5/18 3 Habitat Sanct, Belmont - Fred Bouchard
5/28 4 Andover, Lightning Tree Reservation - Howard Hoople *et al.*
6/14 13 BMB WS, Worcester - Steve Moore, Barbara Volkle
7/4 58 C Franklin NABA - Mark Fairbrother *et al.*
7/8 39 Concord NABA - Jay Shetterly *et al.*
7/8 71 N Worcester NABA - Wendy Howes *et al.*
7/9 44 Truro NABA - Mark Faherty *et al.*
7/17 196 Northampton NABA - Mark Fairbrother *et al.*
7/20 18 Wachusett Reservoir - Mark Lynch, Sheila Carroll
7/30 18 Warren - Mark Lynch, Sheila Carroll
7/31 1000 Surrenden Farm, Groton - Tom Murray
8/8 12 Deerfield - Dave Small
8/12 13 Adams Farm, W. Bridgewater - Don Adams
8/19 12 Dennis - Linnet Tse
8/28 18 Surrenden Farm, Groton - Tom Murray
9/3 100 Northampton CG - Mark Fairbrother
9/17 10 Holliston - Richard Hildreth
10/5 8 Holliston - Richard Hildreth
10/13 6 Quabog IBA, the Brookfields - Mark Lynch, Sheila Carroll
10/25 30 Horn Pond CG, Woburn - Fred Bouchard
10/26 6 Wachusett Reservoir - Mark Lynch, Sheila Carroll
10/29 6 Oak Bluffs - Matt Pelikan
11/7 1 Halibut Point SP, Rockport - Marjorie Watson
- ## Clouded Sulphur
- 5/6 10 Medfield - Walt Webb
5/11 20 Westborough WMA - Steve Moore, Barbara Volkle
5/17 1 Wilbraham, white cedar swamp - Danielle Desmarais
5/24 16 Borden Colony, Raynham - Joe Dwelly
6/1 2 Crane WMA, Falmouth - Andrew Griffith
6/10 2 Hardwick, Mandell Hill EQLT - Wendy Howes, Allan Rawle
6/25 2 Ashfield - Mark Fairbrother

7/4 37 C Franklin NABA - Mark Fairbrother *et al.*
 7/8 200 N Worcester NABA - Wendy Howes *et al.*
 7/9 100 C Berkshire NABA - Tom Tynning *et al.*
 7/17 127 Northampton NABA - Mark Fairbrother *et al.*
 7/31 6 Surrenden Farm, Groton - Tom Murray
 8/12 10 Nasketucket Bay Reserve, Mattapoissett - Michael Newton
 8/13 54 MHF, Sharon - Erik Nielsen
 8/21 6 Bolton Flats, Lancaster - Tom Murray
 8/28 150 EQLT Deer Park Preserve - Wendy Howes
 9/10 40 Worcester Airport - Mark Lynch, Sheila Carroll
 9/28 1 Holliston - Richard Hildreth
 10/1 18 Groton Town Forest - Tom Murray
 10/12 36 New Braintree - Wendy Howes
 10/26 4 Wachusett Reservoir - Mark Lynch, Sheila Carroll
 10/28 30 AP Field Station, Dartmouth - Michael Newton
 10/28 1 FS WMA, Longmeadow - Michele Moore
 11/7 1 Halibut Point SP, Rockport - Marjorie Watson

Orange Sulphur

5/24 2 Borden Colony, Raynham - Joe Dwelly
 6/11 2 Rock Meadow, Belmont - Fred Bouchard
 7/1 5 Falmouth NABA - Andrew Griffith *et al.*
 7/8 14 N Worcester NABA - Wendy Howes *et al.*
 7/17 31 Northampton NABA - Mark Fairbrother *et al.*
 8/16 20 Honey Pot, Hadley - Elise and Karl Barry
 8/26 11 MHF, Sharon - Erik Nielsen
 9/2 8 AP Field Station, Dartmouth - MBC Trip
 9/14 15 Amherst - Sarah Lambdin
 9/27 30 Belle Isle Marsh, Boston - Fred Bouchard
 10/11 5 New Braintree - Wendy Howes
 10/28 30 AP Field Station, Dartmouth - Michael Newton
 11/12 2 Bear Creek WS, Saugus - Marjorie Watson

Cloudless Sulphur

8/2 1 Wareham - Andrew Griffith
 9/20 1 AP Allens Neck, Dartmouth - Mark Rosenstein

Harvester

6/19 1 Washington - Gael Hurley

7/8 1 Mystic Lakes, Medford - Renee LaFontaine
 7/23 2 Middlesex Fells, Medford - Zack Weber
 7/30 10 Mystic Lakes, Medford - Renee LaFontaine
 8/3 1 FS WMA, Longmeadow - Mark Rosenstein
 8/8 13 Mystic Lakes, Medford - Renee LaFontaine
 8/19 1 FS WMA, Longmeadow - MBC Trip
 9/2 3 FS WMA, Longmeadow - Michele Moore
 9/12 14 Mystic Lakes, Medford - Renee LaFontaine

American Copper

5/10 1 Saugus - Mismo Estrella
 5/11 1 Muddy Brook WMA, Hardwick - Wendy Howes
 5/24 2 Borden Colony, Raynham - Joe Dwelly
 5/29 2 Nahant Thicket - Fred Bouchard
 7/1 39 Falmouth NABA - Andrew Griffith *et al.*
 7/8 32 N Worcester NABA - Wendy Howes *et al.*
 7/9 130 Truro NABA - Mark Faherty *et al.*
 7/17 34 Northampton NABA - Mark Fairbrother *et al.*
 8/5 1 Amherst, Andrews Greenhouse - MBC Trip
 8/20 1 Southwick WMA - Michele Moore
 8/26 17 MHF, Sharon - Erik Nielsen
 8/27 1 Cass Meadows, Athol - Wendy Howes, Alan Rawle
 9/2 3 AP Allens Neck, Dartmouth - MBC Trip
 10/4 20 Wareham - Andrew Griffith
 10/15 1 Chicopee - Moe O'Connor
 10/29 3 Oak Bluffs - Matt Pelikan
 11/11 1 Ward Res, Andover - Howard Hoople

Bronze Copper

7/4 1 MPRA, W Newbury - Don Adams
 8/2 1 FS WMA, Longmeadow - Michele Moore
 9/1 1 GMNWR, Concord - Mark Rosenstein
 9/2 1 FS WMA, Longmeadow - Michele Moore
 10/22 1 Wayland - Tom Whelan

Bog Copper

7/4 183 C Franklin NABA - Mark Fairbrother *et al.*
 7/7 2 Barnstable, Centerville - Andrew Griffith
 7/9 5 Truro NABA - Mark Faherty *et al.*

Coral Hairstreak

7/11 1 Hatches Harbor, Provincetown - Tor Hansen
 7/1 1 HPM, Woburn - MBC Trip

- 7/4 2 C Franklin NABA - Mark Fairbrother *et al.*
 7/6 1 Noquochoke Reserve, Dartmouth - Andrew Griffith
 7/9 1 Truro NABA - Mark Faherty *et al.*
 7/9 6 C Berkshire NABA - Tom Tynning *et al.*

Edwards' Hairstreak

- 7/1 18 Falmouth NABA - Andrew Griffith *et al.*
 7/9 2 Truro NABA - Mark Faherty *et al.*
 7/22 1 Crane WMA, Falmouth - Greg Hirth
 7/22 1 MSSF, Plymouth - Blake Dinius

Banded Hairstreak

- 7/1 2 CST, Northborough - Steve Moore, Barbara Volkle
 7/4 4 C Franklin NABA - Mark Fairbrother *et al.*
 7/9 9 C Berkshire NABA - Tom Tynning *et al.*
 7/11 2 Bart's Cobble, Sheffield - Mark Rosenstein
 7/17 4 Northampton NABA - Mark Fairbrother *et al.*
 7/23 2 Dodd Residence, Upton - Tom Dodd
 8/22 1 Adams Farm, W. Bridgewater - Don Adams

Hickory Hairstreak

- 7/11 2 Bart's Cobble, Sheffield - Mark Rosenstein

Striped Hairstreak

- 7/9 7 Truro NABA - Mark Faherty *et al.*
 7/9 3 C Berkshire NABA - Tom Tynning *et al.*

Oak Hairstreak

- 6/30 1 Westhampton, - Todd Wiley

Brown Elfin

- 4/11 1 MSSF, Plymouth - Andrew Griffith
 4/13 8 Grafton - Dolores Price, Marvin St. Onge
 4/15 1 Montague Plains - Mark Fairbrother
 4/29 10 MSSF, Plymouth - Andrew Griffith
 5/6 25 MSSF, Plymouth - Andrew Griffith
 5/7 5 HPM, Woburn - Howard Hoople, Peter Loshin
 6/11 2 Rock Meadow, Belmont - Fred Bouchard

Hoary Elfin

- 4/13 8 Correllus State Forest, West Tisbury - Matt Pelikan
 4/21 10 MSSF, Plymouth - Andrew Griffith
 4/29 1 MSSF, Plymouth - Andrew Griffith
 5/6 10 MSSF, Plymouth - Andrew Griffith
 5/21 1 MSSF, Plymouth - Andrew Griffith

Frosted Elfin

- 4/14 2 Andover, Lightning Tree Reservation - Howard Hoople

- 4/20 5 Crane WMA, Falmouth - Joe Dwelly
 5/6 2 MSSF, Plymouth - Andrew Griffith
 5/10 1 MSSF, Plymouth - Steve Moore, Barbara Volkle
 5/21 1 Weir Hill Res, N Andover - Russ Hopping, Bo Zaremba
 5/28 1 MSSF, Plymouth - Andrew Griffith
 5/28 8 Andover, Lightning Tree Reservation - Howard Hoople *et al.*

Henry's Elfin

- 4/10 1 Milton - Rosemary Mosco
 4/13 2 Burma Road, Milton - Steve Moore, Barbara Volkle
 4/20 1 Crane WMA, Falmouth - Joe Dwelly
 5/7 4 Burma Road, Milton - Andrew Griffith
 5/19 2 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith
 5/28 3 Andover, Lightning Tree Reservation - Howard Hoople *et al.*

Eastern Pine Elfin

- 4/13 1 Holliston - Richard Hildreth
 4/15 1 Montague Plains - Mark Fairbrother
 4/21 11 Ware River Watershed - Mark Lynch, Sheila Carroll
 5/6 6 MSSF, Plymouth - Andrew Griffith
 5/7 3 Petersham - Mark Lynch, Sheila Carroll
 5/7 1 Plum Island, Newbury - Marjorie Watson
 5/11 37 Ware River Watershed - Mark Lynch, Sheila Carroll
 5/18 1 Williamsburg Flower Hill Farm - Carol Duke
 5/26 1 Bart's Cobble, Sheffield - Andrew Griffith
 5/30 1 Groton, Rocky Hill Sanc. - Tom Murray
 6/6 1 HPM, Woburn - Peter Loshin
 6/21 1 Holliston - Richard Hildreth
 6/25 1 Wareham, MAS Great Neck WS - Andrew Griffith

Juniper Hairstreak

- 5/22 3 HPM, Woburn - Mark Rosenstein
 5/29 2 HPM, Woburn - Danielle Desmarais
 5/31 1 HPM, Woburn - Bo Zaremba

White M Hairstreak

- 5/10 1 Arlington Heights - Lisa Wolfe
 7/30 1 Forest Park, Springfield - Mark Rosenstein
 8/11 1 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith
 8/12 2 Nasketucket Bay Reserve, Mattapoisett - Michael Newton
 8/19 4 Nasketucket Bay Reserve, Mattapoisett - MBC Trip

Gray Hairstreak

- 3/27 1 Duarte's Pond, W Tisbury - Matt

Pelikan
 5/8 1 Weir Hill Res, N Andover - Russ Hopping
 5/25 1 FS WMA, Longmeadow - Andrew Griffith
 7/4 1 C Franklin NABA - Mark Fairbrother *et al.*
 7/9 4 Truro NABA - Mark Faherty *et al.*
 7/17 1 Northampton NABA - Mark Fairbrother *et al.*
 8/11 1 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith
 8/26 1 Parker Preserve, Grafton - Dolores Price, Marvin St. Onge
 9/13 1 Holliston - Richard Hildreth
 10/1 8 Dunstable - Tom Murray
 10/28 1 Hingham - Sylvia Schuler

Red-banded Hairstreak

8/9 1 Randolph - Ann Schunior
 8/12 3 Nasketucket Bay Reserve, Mattapoisett - Michael Newton
 8/19 9 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/21 1 Falmouth - Greg Hirth
 8/22 1 LPWS, Barnstable - Linnet Tse
 8/23 3 Marion - Andrew Griffith
 8/26 1 Arlington Heights - Peter Loshin
 8/28 1 Harwich - Mark Faherty
 9/2 3 AP Allens Neck, Dartmouth - MBC Trip

Early Hairstreak

5/27 3 North Adams, Mt. Greylock State Res. - Andrew Griffith

Eastern Tailed-Blue

5/9 4 Lancaster - Dawn Vesey
 5/13 1 High Head Bike Path, Truro - Fred Bouchard
 5/24 3 Sharon - Danielle Desmarais
 5/30 2 Groton, Rocky Hill Sanc. - Tom Murray
 6/9 1 Crane WMA, Falmouth - Peter Crosson
 6/25 3 MSSF, Plymouth - Andrew Griffith
 7/1 37 Falmouth NABA - Andrew Griffith *et al.*
 7/8 10 Concord NABA - Jay Shetterly *et al.*
 7/13 2 Old Town Hill, Newbury - Bo Zaremba
 7/22 1 Crane WMA, Falmouth - Greg Hirth
 8/5 1 Pembroke, Tubb's Meadow CA - Andrew Griffith
 8/11 1 G40, Quabbin - Wendy Howes
 8/16 12 Honey Pot, Hadley - Elise and Karl Barry
 8/27 12 BMB WS, Worcester - MBC Trip
 9/3 1 Arlington Heights - Lisa Wolfe
 9/21 1 Holliston - Richard Hildreth
 10/1 3 Dunstable - Tom Murray
 10/4 1 HPM, Woburn - Mark Rosenstein

10/26 1 Ashland - Michael Newton

Spring Azure

4/8 1 MSSF, Plymouth - Andrew Griffith
 4/13 10 Grafton - Dolores Price, Marvin St. Onge
 4/15 12 Brewster - Stanley Selkow
 4/21 50 MSSF, Plymouth - Andrew Griffith
 5/1 8 Parker Preserve, Grafton - Price, Volkle & Moore
 5/6 100 MSSF, Plymouth - Andrew Griffith
 5/7 20 Burma Road, Milton - Andrew Griffith
 5/10 38 MSSF, Plymouth - Steve Moore, Barbara Volkle
 5/11 44 Ware River Watershed - Mark Lynch, Sheila Carroll
 5/19 25 Nasketucket Bay Reserve, Mattapoisett - Andrew Griffith
 5/22 5 Holliston - Richard Hildreth
 5/26 31 Ware River Watershed - Mark Lynch, Sheila Carroll
 5/31 3 HPM, Woburn - Bo Zaremba
 6/2 1 Williamsburg Flower Hill Farm - Carol Duke
 7/5 1 Hubbardston - Mark Lynch, Sheila Carroll

'Summer' Azure

6/30 4 S Berkshire NABA - Rene Wendell *et al.*
 6/30 1 CST, Northborough - Steve Moore, Barbara Volkle
 7/4 7 C Franklin NABA - Mark Fairbrother *et al.*
 7/8 11 N Worcester NABA - Wendy Howes *et al.*
 7/9 10 C Berkshire NABA - Tom Tynning *et al.*
 7/17 3 Northampton NABA - Mark Fairbrother *et al.*
 7/30 1 Lime Kiln, Sheffield - MBC Trip
 8/11 2 G40, Quabbin - Wendy Howes
 8/19 1 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/26 9 MHF, Sharon - Erik Nielsen
 8/30 1 Hardwick - Wendy Howes & Alan Rawle
 9/2 1 GBH, Canton - Stephan Baird
 10/1 1 New Salem - Dawn Vesey
 10/25 1 Ashland - Michael Newton

Silvery Blue

5/8 3 Pepperell - Tom Murray
 5/14 11 Hennessey Property, Grafton - Dolores Price, Marvin St. Onge
 5/22 20 Delaney WMA, Stow - Garry Kessler
 5/27 1 North Adams, Mt. Greylock State Res. - Andrew Griffith
 5/29 1 Groton Town Forest - Tom Murray

5/31 1 Lancaster - Tom Murray

Variegated Fritillary

8/10 1 Ludlow - Eddie Wrann

8/12 1 Sandy Neck, Barnstable - Peter Crosson

Great Spangled Fritillary

6/11 1 Southwick WMA - Michele Moore

6/25 1 Quabog IBA, the Brookfields - Mark Lynch, Sheila Carroll

6/30 38 S Berkshire NABA - Rene Wendell *et al.*

7/1 4 Hardwick - Mark Lynch, Sheila Carroll

7/4 65 C Franklin NABA - Mark Fairbrother *et al.*

7/8 36 N Worcester NABA - Wendy Howes *et al.*

7/9 77 C Berkshire NABA - Tom Tynning *et al.*

7/15 3 October Mountain, Pittsfield - Andrew Griffith

7/17 43 Northampton NABA - Mark Fairbrother *et al.*

7/26 1 Townsend - Gary Sirois

8/4 3 G45 Quabbin - Wendy Howes, Alan Rawle

8/20 4 G37, Quabbin - Wendy Howes & Alan Rawle

8/26 25 MMP, Williamstown - MBC Trip

8/28 1 Surrenden Farm, Groton - Tom Murray

8/29 4 West Whately - Bill Benner

9/3 2 Northampton CG - Mark Fairbrother

9/10 1 Worcester Airport - Mark Lynch, Sheila Carroll

9/22 2 Northampton CG - Mark Rosenstein

10/1 1 Dunstable - Tom Murray

10/7 1 Wilbraham - Danielle Desmarais

Aphrodite Fritillary

7/8 1 Petersham - Mark Lynch, Sheila Carroll

7/8 4 N Worcester NABA - Wendy Howes *et al.*

7/17 1 Northampton NABA - Mark Fairbrother *et al.*

7/28 1 Ware River Watershed - Mark Lynch, Sheila Carroll

8/6 1 Williamsburg Flower Hill Farm - Carol Duke

Atlantis Fritillary

6/12 1 October Mountain, Pittsfield - Gael Hurley

6/21 2 October Mountain SF, Washington - Mark Rosenstein

7/9 3 C Berkshire NABA - Tom Tynning *et al.*

7/15 3 October Mountain, Pittsfield - Andrew Griffith

8/18 1 October Mountain, Pittsfield - Gael Hurley

Silver-bordered Fritillary

7/6 1 Adams Farm, W. Bridgewater - Don Adams

7/9 1 C Berkshire NABA - Tom Tynning *et al.*

7/9 1 Leicester - Dolores Price, Marvin St. Onge

7/17 5 Sherborn - Mark Rosenstein

7/17 2 Northampton NABA - Mark Fairbrother *et al.*

8/2 4 Waring Field, Rockport - Mark Rosenstein

Meadow Fritillary

6/30 4 S Berkshire NABA - Rene Wendell *et al.*

7/4 1 C Franklin NABA - Mark Fairbrother *et al.*

Harris' Checkerspot

7/30 1 Sheffield - Jonathan Pierce

Pearl Crescent

5/13 3 High Head Bike Path, Truro - Fred Bouchard

5/14 10 Hennessey Property, Grafton - Dolores Price, Marvin St. Onge

5/21 15 Weir Hill Res, N Andover - Russ Hopping, Bo Zarembo

5/26 6 Shirley - Tom Murray

5/28 31 Maudslay SP, NP - Bo Zarembo

6/4 2 Stockbridge - Tom Dodd

6/19 6 Washington - Gael Hurley

7/8 9 Concord NABA - Jay Shetterly *et al.*

7/9 3 C Berkshire NABA - Tom Tynning *et al.*

7/13 4 Old Town Hill, Newbury - Bo Zarembo

7/17 366 Northampton NABA - Mark Fairbrother *et al.*

7/22 33 MPRA, W Newbury - Marjorie Watson

7/23 25 Ware River Watershed, Barre - Wendy Howes, Alan Rawle

7/26 200 S-C TTOR, N Andover - Marjorie Watson

7/30 5 Sheffield - MBC Trip

8/2 240 Waring Field, Rockport - Mark Rosenstein

8/9 3 Sweet Alice CA, Amherst - Fred Bouchard

8/14 1 Oregon Sportsmen Club meadow, Chicopee - Moe O'Connor

8/22 11 Rough Meadows WS, Rowley - Bo Zarembo

8/28 4 EQLT Deer Park Preserve - Wendy Howes

9/2 1 Warren - Mark Lynch, Sheila Carroll

9/2 1 FS WMA, Longmeadow - Michele Moore

9/14 5 Adams Farm, W. Bridgewater - Don Adams

9/21 4 Squantum, Quincy - Mark Rosenstein
10/1 26 Groton Town Forest - Tom Murray
10/12 1 New Braintree - Wendy Howes

Baltimore Checkerspot

6/9 1 Crane WMA, Falmouth - Peter Crosson
6/12 2 Adams Farm, W. Bridgewater - Don Adams
6/26 16 Adams Farm, W. Bridgewater - Don Adams
6/30 10 S Berkshire NABA - Rene Wendell *et al.*
7/1 200 Falmouth NABA - Andrew Griffith *et al.*
7/9 146 C Berkshire NABA - Tom Tynning *et al.*
7/11 28 Woodsom Farm, Amesbury - Marjorie Watson
7/17 14 Northampton NABA - Mark Fairbrother *et al.*
7/26 1 Colrain - Jocelyn Demuth

Question Mark

7/6 1 Noquochoke Reserve, Dartmouth - Andrew Griffith
7/8 1 N Worcester NABA - Wendy Howes *et al.*
7/9 1 C Berkshire NABA - Tom Tynning *et al.*
7/17 2 Northampton NABA - Mark Fairbrother *et al.*
8/5 1 G45 Quabbin - Wendy Howes, Alan Rawle
8/12 1 Nasketucket Bay Reserve, Mattapoisett - Michael Newton
10/8 1 Petersham - Dawn Vesey
10/11 1 Hardwick - Wendy Howes

Eastern Comma

3/21 1 Hardwick - Wendy Howes, Alan Rawle
3/21 1 Ludlow - Karl & Elise Barry
4/4 2 Noon Hill Res, Medfield - Madeline Champagne
4/28 1 Conte NWR, Hadley - Sarah Lambdin
5/8 1 Northborough - Steve Moore, Barbara Volkle
5/26 1 Shirley - Tom Murray
6/21 2 Middleborough - Andrew Griffith
6/30 1 CST, Westborough - Steve Moore, Barbara Volkle
6/30 23 S Berkshire NABA - Rene Wendell *et al.*
7/4 5 C Franklin NABA - Mark Fairbrother *et al.*
7/11 3 Bart's Cobble, Sheffield - Mark Rosenstein
7/20 2 Dodd Residence, Upton - Tom Dodd
8/5 1 Amherst, Brookfield Trail - MBC Trip
8/9 1 Dodd Residence, Upton - Tom Dodd

10/1 4 Dunstable - Tom Murray
10/27 1 Ashland - Michael Newton
11/12 1 Ware - Wendy Howes, Alan Rawle

Compton Tortoiseshell

3/27 4 Oxford - Dan Berard
4/9 1 Chesterfield - Danielle Lee
7/8 1 Westhampton - Todd
7/15 1 October Mountain, Pittsfield - Andrew Griffith
8/18 1 October Mountain, Pittsfield - Gael Hurley
10/1 1 October Mountain, Pittsfield - Gael Hurley

Mourning Cloak

2/16 1 Ashland - Dawn Vesey
3/18 1 Ward Res, Andover - Howard Hoople
3/18 1 Medfield - Isabelle Fox
3/22 4 S Hadley - Bill Benner, Joe Wicinski
3/29 1 Egremont - Julie Richburg
4/8 1 MSSF, Plymouth - Andrew Griffith
4/13 6 Burma Road, Milton - Steve Moore, Barbara Volkle
4/20 1 Crane WMA, Falmouth - Joe Dwelly
4/29 1 MSSF, Plymouth - Andrew Griffith
5/7 2 WMWS, Princeton - Linda Graetz
5/13 1 Beech Forest, Provincetown - Fred Bouchard
5/27 1 Moran WMA, Windsor - Andrew Griffith
7/9 4 C Berkshire NABA - Tom Tynning *et al.*
7/9 2 Truro NABA - Mark Faherty *et al.*
7/11 1 Bart's Cobble, Sheffield - Mark Rosenstein
7/17 1 Upton - Tom Dodd
8/12 1 BMB WS, Worcester - MBC Trip
10/1 1 Orange Airport - Dave Small
10/8 1 Georgetown - Marjorie Watson
10/22 1 Groton - Tom Murray

American Lady

4/9 1 Correllus State Forest, West Tisbury - Matt Pelikan
4/11 1 Fall River - Doug Hlousek
4/20 1 West Whately - Bill Benner
4/25 1 LPWS, Barnstable - Linnet Tse
5/7 1 Oxbow NWR, Harvard - Steve Moore, Barbara Volkle
5/26 1 MBWMA, Newbury - Marjorie Watson
6/11 1 Southwick WMA - Michele Moore
6/22 1 Arlington Heights - Lisa Wolfe
7/1 12 Falmouth NABA - Andrew Griffith *et al.*
7/11 1 Bart's Cobble, Sheffield - Mark Rosenstein
7/17 1 Sherborn - Mark Rosenstein
7/30 1 Belchertown - Elise and Karl Barry

8/20 3 Wareham - Andrew Griffith
 8/27 3 BMB WS, Worcester - MBC Trip
 9/3 1 Arlington Heights - Lisa Wolfe
 10/4 2 G43 Quabbin - Mark Lynch, Sheila Carroll
 10/12 1 Holliston - Richard Hildreth
 10/28 40 AP Field Station, Dartmouth - Michael Newton
 10/29 3 Oak Bluffs - Matt Pelikan
 11/7 1 Halibut Point SP, Rockport - Marjorie Watson

Painted Lady

5/31 1 HPM, Woburn - Bo Zaremba
 6/11 2 Ward Res, Andover - MBC Trip
 6/28 1 Arlington Heights - Lisa Wolfe
 7/4 1 C Franklin NABA - Mark Fairbrother *et al.*
 7/8 1 Concord NABA - Jay Shetterly *et al.*
 7/23 1 Belmont - Fred Bouchard
 8/13 1 MHF, Sharon - Erik Nielsen
 8/28 1 Wareham - Andrew Griffith
 9/4 1 Amesbury, Battis Farm - Marjorie Watson
 9/21 1 Arlington Heights - Lisa Wolfe, Peter Loshin
 10/24 4 Eastern Point, Nahant - Linda Pivacek
 10/28 1 AP Field Station, Dartmouth - Michael Newton

Red Admiral

4/3 1 Duarte's Pond, W Tisbury - Matt Pelikan
 4/14 1 Westwood - Tom Dodd
 4/28 1 Westborough - Garry & Annie Kessler
 5/6 1 MSSF, Plymouth - Andrew Griffith
 5/17 1 Arlington Heights - Lisa Wolfe
 5/24 2 GMNWR, Concord - Linda Graetz
 5/27 1 North Adams, Mt. Greylock State Res. - Andrew Griffith
 6/11 2 BMB WS, Worcester - MBC Trip
 6/25 2 Middleborough - Andrew Griffith
 7/4 19 C Franklin NABA - Mark Fairbrother *et al.*
 7/8 23 Concord NABA - Jay Shetterly *et al.*
 7/9 10 C Berkshire NABA - Tom Tynning *et al.*
 7/17 45 Northampton NABA - Mark Fairbrother *et al.*
 7/17 3 Arlington Heights - Lisa Wolfe
 7/24 1 Hardwick - Mark Lynch, Sheila Carroll
 7/31 1 Hatfield - Frank Bowrys
 8/5 2 Pembroke, Tubb's Meadow CA - Andrew Griffith
 8/13 1 Ludlow - Moe O'Connor
 8/21 1 Wellesley - Joan Chasan
 8/28 1 Hardwick - Wendy Howes
 9/5 1 Middleton Community Garden - Marjorie Watson
 10/20 1 Holliston - Richard Hildreth

10/27 1 Arlington Heights - Lisa Wolfe
 11/6 1 Plum Island, Newbury - Marjorie Watson
 11/17 1 Hingham - Sylvia Schuler

Common Buckeye

7/25 3 Southwick WMA - Michele Moore
 8/13 1 MHF, Sharon - Erik Nielsen
 9/20 1 AP Allens Neck, Dartmouth - Mark Rosenstein

White Admiral

5/29 1 Amethyst Brook CA, Amherst - Josh Rose
 6/15 1 Royalston - Greg Dysart
 6/21 2 October Mountain SF, Washington - Mark Rosenstein
 7/15 1 October Mountain, Pittsfield - Andrew Griffith
 8/6 1 G43 Quabbin - Wendy Howes, Alan Rawle
 8/11 3 Winchendon - Dave Small
 8/20 1 Hardwick - Wendy Howes & Alan Rawle
 8/28 1 Hardwick - Wendy Howes

Red-spotted Purple

5/16 1 Holliston - Richard Hildreth
 5/30 2 Hanson - Deborah Swanson
 6/6 5 Assabet River NWR, Sudbury - Greg Dysart
 6/11 16 Hubbardston - Mark Lynch, Sheila Carroll
 6/21 13 October Mountain SF, Washington - Mark Rosenstein
 7/1 2 HPM, Woburn - MBC Trip
 7/9 14 C Berkshire NABA - Tom Tynning *et al.*
 7/22 4 MBWMA, Newbury - Marjorie Watson
 7/28 11 Ware River Watershed - Mark Lynch, Sheila Carroll
 8/9 8 Tom Swamp, Petersham - Dave Small
 8/11 11 G40, Quabbin - Wendy Howes
 8/13 37 Ware River Watershed - Mark Lynch, Sheila Carroll
 8/24 15 Ware River Watershed - Mark Lynch, Sheila Carroll
 8/30 2 Hardwick - Wendy Howes & Alan Rawle
 9/3 16 Ware River Watershed - Mark Lynch, Sheila Carroll
 9/5 1 Middleton Community Garden - Marjorie Watson
 9/13 1 Hardwick - Wendy Howes, Alan Rawle
 10/1 1 Phillipston - Wendy Howes, Alan Rawle

Viceroy

5/26 1 Montague Plains - Mark Rosenstein
 5/31 1 Lancaster - Tom Murray
 6/10 1 Warren - Mark Lynch, Sheila Carroll

6/19 2 Washington - Gael Hurley
 6/25 2 Plainfield - Mark Fairbrother
 7/9 2 C Berkshire NABA - Tom Tynning *et al.*
 7/17 12 Northampton NABA - Mark Fairbrother *et al.*
 7/28 3 Ware River Watershed - Mark Lynch, Sheila Carroll
 8/1 1 MBWMA, Newbury - Marjorie Watson
 8/19 4 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/30 4 Muddy Brook WMA, Hardwick - Wendy Howes & Alan Rawle
 9/3 1 Florence Community Gardens - Mark Fairbrother
 9/14 1 Lakeville - Andrew Griffith
 9/21 1 Squantum, Quincy - Mark Rosenstein
 10/2 1 Dexter Drumlin, Lancaster - Dawn Vesey
 10/20 1 Fuitlands, Harvard - Henrietta Yelle

Hackberry Emperor

6/30 3 S Berkshire NABA - Rene Wendell *et al.*
 7/11 1 Bart's Cobble, Sheffield - Mark Rosenstein

Northern Pearly-Eye

7/4 1 C Franklin NABA - Mark Fairbrother *et al.*
 7/8 1 N Worcester NABA - Wendy Howes *et al.*
 7/9 4 C Berkshire NABA - Tom Tynning *et al.*
 7/15 1 October Mountain, Pittsfield - Andrew Griffith

Eyed Brown

7/9 2 C Berkshire NABA - Tom Tynning *et al.*

Appalachian Brown

6/26 7 Burma Road, Milton - Mark Rosenstein
 7/8 23 Concord NABA - Jay Shetterly *et al.*
 7/8 11 N Worcester NABA - Wendy Howes *et al.*
 7/9 20 Truro NABA - Mark Faherty *et al.*
 7/16 12 CST, Westborough - MBC Trip
 7/17 8 Northampton NABA - Mark Fairbrother *et al.*
 7/30 2 Lime Kiln, Sheffield - MBC Trip
 8/5 3 Pembroke, Tubbs's Meadow CA - Andrew Griffith
 9/2 4 FS WMA, Longmeadow - Michele Moore

Little Wood-Satyr

6/3 1 Lamson Rd, Foxborough - Madeline Champagne
 5/24 22 Borden Colony, Raynham - Joe Dwelly
 6/1 12 Crane WMA, Falmouth - Andrew Griffith

6/9 1 Wareham, MAS Great Neck WS - Andrew Griffith
 6/15 13 Ware River Watershed - Mark Lynch, Sheila Carroll
 6/30 14 S Berkshire NABA - Rene Wendell *et al.*
 7/8 26 N Worcester NABA - Wendy Howes *et al.*
 7/8 15 Concord NABA - Jay Shetterly *et al.*
 7/9 30 Truro NABA - Mark Faherty *et al.*
 7/9 1 CST, Northborough - Steve Moore, Barbara Volk
 7/11 2 Bart's Cobble, Sheffield - Mark Rosenstein
 7/17 6 Northampton NABA - Mark Fairbrother *et al.*
 7/30 2 Lime Kiln, Sheffield - MBC Trip
 8/9 2 Sweet Alice CA, Amherst - Fred Bouchard

Common Ringlet

5/14 1 Hennessey Property, Grafton - Dolores Price, Marvin St. Onge
 5/19 1 Dinosaur Footprints TTOR, Holyoke - MBC Trip
 5/28 70 Maudslay SP, NP - Bo Zaremba
 6/4 100 Stockbridge - Tom Dodd
 6/12 2 Adams Farm, W. Bridgewater - Don Adams
 6/21 53 October Mountain SF, Washington - Mark Rosenstein
 6/30 31 S Berkshire NABA - Rene Wendell *et al.*
 7/9 17 C Berkshire NABA - Tom Tynning *et al.*
 7/17 22 Northampton NABA - Mark Fairbrother *et al.*
 7/30 36 Grafton - Dolores Price, Marvin St. Onge
 7/30 20 Lime Kiln, Sheffield - MBC Trip
 8/9 11 Sweet Alice CA, Amherst - Fred Bouchard
 8/14 51 Maudslay SP, NP - Bo Zaremba
 8/28 1 EQLT Deer Park Preserve - Wendy Howes
 8/28 7 Surrenden Farm, Groton - Tom Murray
 9/2 1 Fountain Park, Wilbraham - Danielle Desmarais
 10/2 1 Dexter Drumlin, Lancaster - Dawn Vesey

Common Wood-Nymph

7/4 1 MPRA, W Newbury - Don Adams
 7/8 6 N Worcester NABA - Wendy Howes *et al.*
 7/9 28 Truro NABA - Mark Faherty *et al.*
 7/9 147 C Berkshire NABA - Tom Tynning *et al.*
 7/17 50 Northampton NABA - Mark

Fairbrother *et al.*

- 7/22 6 MSSF, Plymouth - Blake Dinius
7/29 1 Cass Meadows, Athol - Wendy Howes,
Alan Rawle
8/5 1 Gardner - Rosemary Mosco
8/11 1 G40, Quabbin - Wendy Howes
8/22 3 Rough Meadows WS, Rowley - Bo
Zaremba
8/26 2 MMP, Williamstown - MBC Trip
9/2 1 GBH, Canton - Stephan Baird

Monarch

- 4/13 1 Yarmouth - Mary St. George
5/6 1 Franklin - Jeanne Landin
5/16 1 Wareham - Andrew Griffith
5/30 1 Groton, Rocky Hill Sanc. - Tom Murray
6/10 1 Honey Pot, Hadley - Mark Fairbrother
6/19 2 Washington - Gael Hurley
6/30 2 Ware River Watershed - Mark Lynch,
Sheila Carroll
7/8 29 N Worcester NABA - Wendy Howes
et al.
7/9 15 C Berkshire NABA - Tom Tynning *et al.*
7/17 42 Northampton NABA - Mark
Fairbrother *et al.*
7/23 4 Adams Farm, W. Bridgewater - Don
Adams
7/30 4 Lime Kiln, Sheffield - MBC Trip
8/5 6 Woodsom Farm, Amesbury - Marjorie
Watson
8/11 1 Hardwick - Wendy Howes
8/13 13 MHF, Sharon - Erik Nielsen
8/20 4 N Andover - Marjorie Watson
8/31 3 Arlington Heights - Lisa Wolfe
9/2 9 Sylvan Nursery, Dartmouth - MBC Trip
9/17 1 Holliston - Richard Hildreth
10/4 1 G43 Quabbin - Mark Lynch, Sheila
Carroll
10/12 1 Hatfield - Frank Bowrys
10/28 60 AP Field Station, Dartmouth -
Michael Newton
10/28 1 Montague Plains - Jeremy Coleman
10/29 3 Oak Bluffs - Matt Pelikan

Silver-spotted Skipper

- 5/29 1 Groton Town Forest - Tom Murray
6/10 1 Conte NWR, Hadley - Sarah Lambdin
6/21 2 Holliston - Richard Hildreth
6/30 21 S Berkshire NABA - Rene Wendell
et al.
6/30 1 CST, Westborough - Steve Moore,
Barbara Volkle
7/4 47 C Franklin NABA - Mark Fairbrother
et al.
7/8 8 N Worcester NABA - Wendy Howes
et al.
7/9 18 Truro NABA - Mark Faherty *et al.*
7/11 14 Bart's Cobble, Sheffield - Mark

Rosenstein

- 7/17 54 Northampton NABA - Mark
Fairbrother *et al.*
7/26 14 Groveland - Bo Zaremba
8/3 1 Plymouth - Elaine Abrams
8/16 20 Honey Pot, Hadley - Elise and Karl
Barry
8/29 1 West Whately - Bill Benner
9/14 1 Holliston - Richard Hildreth
9/28 1 Rock Meadow, Belmont - Fred
Bouchard
10/4 3 Wilbraham - Danielle Desmarais

Hoary Edge

- 6/14 3 BMB WS, Worcester - Steve Moore,
Barbara Volkle
7/6 1 Rock House TOR, West Brookfield -
Tom Dodd

Southern Cloudywing

- 6/9 1 Crane WMA, Falmouth - Peter Crosson
6/14 1 BMB WS, Worcester - Steve Moore,
Barbara Volkle
6/20 1 Southwick WMA - Michele Moore
6/25 1 MSSF, Plymouth - Andrew Griffith
7/1 2 Falmouth NABA - Andrew Griffith *et al.*

Northern Cloudywing

- 6/11 1 BMB WS, Worcester - MBC Trip
6/14 4 BMB WS, Worcester - Steve Moore,
Barbara Volkle

Dreamy Duskywing

- 5/26 2 Montague Plains - Mark Rosenstein
5/29 1 Groton Town Forest - Tom Murray
6/11 1 BMB WS, Worcester - MBC Trip

Sleepy Duskywing

- 4/29 6 MSSF, Plymouth - Andrew Griffith
5/6 20 MSSF, Plymouth - Andrew Griffith
5/10 1 MSSF, Plymouth - Steve Moore,
Barbara Volkle
5/21 1 MSSF, Plymouth - Andrew Griffith

Juvenal's Duskywing

- 5/6 6 MSSF, Plymouth - Andrew Griffith
5/6 2 Belchertown - Steve Moore, Barbara
Volkle
5/10 18 MSSF, Plymouth - Steve Moore,
Barbara Volkle
5/11 27 Ware River Watershed - Mark Lynch,
Sheila Carroll
5/29 10 Athol CA - Dave Small
5/30 4 Groton, Rocky Hill Sanc. - Tom Murray
5/31 3 Erving - Mark Lynch, Sheila Carroll
6/6 3 HPM, Woburn - Peter Loshin
7/8 1 N Worcester NABA - Wendy Howes
et al.
7/22 1 Crane WMA, Falmouth - Greg Hirth

Wild Indigo Duskywing

5/12 2 Housatonic WMA, Lenox - Gael Hurley
 5/26 3 Berkshire County - Andrew Griffith
 6/1 1 Crane WMA, Falmouth - Andrew Griffith
 6/11 1 BMB WS, Worcester - MBC Trip
 7/30 3 Belchertown - Elise and Karl Barry
 9/22 1 Northampton CG - Marcia Merithew
 10/2 1 Dexter Drumlin, Lancaster - Dawn Vesey

Common Sootywing

5/29 1 Meadow Road, Montague - Mark Fairbrother
 7/11 1 Bart's Cobble, Sheffield - Mark Rosenstein
 7/17 23 Northampton NABA - Mark Fairbrother *et al.*
 7/29 4 Phillipston - Wendy Howes, Alan Rawle

Arctic Skipper

6/11 3 October Mountain, Pittsfield - Gael Hurley
 6/19 10 Washington - Gael Hurley

Least Skipper

6/11 2 Rock Meadow, Belmont - Fred Bouchard
 6/21 50 Middleborough - Andrew Griffith
 6/30 10 CST, Westborough - Steve Moore, Barbara Volkle
 7/4 11 C Franklin NABA - Mark Fairbrother *et al.*
 7/9 10 C Berkshire NABA - Tom Tynning *et al.*
 8/8 1 Dexter Drumlin, Lancaster - Dawn Vesey
 8/19 5 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/21 23 Bolton Flats, Lancaster - Tom Murray
 8/28 8 Surrenden Farm, Groton - Tom Murray
 9/2 5 FS WMA, Longmeadow - Michele Moore
 9/2 3 AP Allens Neck, Dartmouth - MBC Trip

European Skipper

6/21 2 October Mountain SF, Washington - Mark Rosenstein
 6/30 286 S Berkshire NABA - Rene Wendell *et al.*
 6/30 70 Ware River Watershed - Mark Lynch, Sheila Carroll
 7/4 11 C Franklin NABA - Mark Fairbrother *et al.*
 7/5 1 Hubbardston - Mark Lynch, Sheila Carroll
 7/8 3 Old Town Hill, Newbury - Bo Zarembo
 7/8 12 N Worcester NABA - Wendy Howes *et al.*
 7/9 158 C Berkshire NABA - Tom Tynning *et al.*

7/15 3 October Mountain, Pittsfield - Andrew Griffith

Fiery Skipper

8/13 4 Verrill Farm, Concord - Rosemary Mosco

Leonard's Skipper

8/23 1 Arlington Heights - Peter Loshin
 9/1 2 Falmouth - Michael Newton

Cobweb Skipper

5/26 3 Montague Plains - Mark Rosenstein
 5/28 3 Montague Plains - Andrew Griffith

Indian Skipper

5/21 1 Wareham - Andrew Griffith
 5/21 8 MSSF, Plymouth - Andrew Griffith
 5/28 7 Maudslay SP, NP - Bo Zarembo
 5/28 3 Montague Plains - Andrew Griffith
 5/28 1 Dunstable - Tom Murray
 5/29 2 33 Mechanic Street, Upton - Tom Dodd
 5/31 2 Lancaster - Tom Murray

Peck's Skipper

5/22 1 Holliston - Richard Hildreth
 5/27 6 Dodd Residence, Upton - Tom Dodd
 5/29 4 Groton Town Forest - Tom Murray
 6/11 3 BMB WS, Worcester - MBC Trip
 6/21 1 October Mountain SF, Washington - Mark Rosenstein
 6/30 2 The Ordway Property, W Newbury - Bo Zarembo
 7/9 67 C Berkshire NABA - Tom Tynning *et al.*
 7/23 1 Ashfield - Joan Gemme
 7/30 4 Grafton - Dolores Price, Marvin St. Onge
 8/5 6 Dodd Residence, Upton - Tom Dodd
 8/12 3 Nasketucket Bay Reserve, Mattapoisett - Michael Newton
 8/20 13 N Andover - Marjorie Watson
 8/27 1 Cass Meadows, Athol - Wendy Howes, Alan Rawle
 9/2 4 AP Field Station, Dartmouth - MBC Trip
 9/19 1 Belmont - Fred Bouchard
 10/4 11 Hans Morris Res., Newbury - Bo Zarembo

Tawny-edged Skipper

5/29 1 Groton Town Forest - Tom Murray
 6/9 1 Wareham, MAS Great Neck WS - Andrew Griffith
 6/19 3 Washington - Gael Hurley
 7/1 2 Falmouth NABA - Andrew Griffith *et al.*
 7/17 1 Holliston - Richard Hildreth
 7/30 1 Belchertown - Elise and Karl Barry
 8/10 1 Amherst - Sarah Lambdin
 8/20 2 N Andover - Marjorie Watson
 8/21 1 Wareham - Andrew Griffith
 8/28 3 Harwich - Mark Faherty

Crossline Skipper

- 7/12 1 Belchertown - Elise and Karl Barry
7/16 1 CST, Westborough - MBC Trip
7/16 1 Westborough WMA - MBC Trip
7/26 1 Holliston - Richard Hildreth

Long Dash

- 5/14 1 Hennessey Property, Grafton - Dolores Price, Marvin St. Onge
5/28 29 Maudslay SP, NP - Bo Zaremba
6/9 2 Crane WMA, Falmouth - Peter Crosson
6/19 3 Washington - Gael Hurley
6/25 10 MSSF, Plymouth - Andrew Griffith
6/30 44 S Berkshire NABA - Rene Wendell *et al.*
7/9 13 C Berkshire NABA - Tom Tynning *et al.*
7/15 3 October Mountain, Pittsfield - Andrew Griffith
8/11 1 Nasketucket Bay Reserve, Mattapoisett - Mark Rosenstein
8/31 1 S-C TTOR, N Andover - Marjorie Watson
9/20 1 Holliston - Richard Hildreth
10/4 1 Rock Meadow, Belmont - Mark Rosenstein

Northern Broken-Dash

- 6/30 10 S Berkshire NABA - Rene Wendell *et al.*
7/1 2 Falmouth NABA - Andrew Griffith *et al.*
7/4 2 C Franklin NABA - Mark Fairbrother *et al.*
7/9 69 C Berkshire NABA - Tom Tynning *et al.*
7/17 53 Northampton NABA - Mark Fairbrother *et al.*
7/23 21 MHF, Sharon - Eric Nielsen
7/30 4 Grafton - Dolores Price, Marvin St. Onge
8/11 3 Nasketucket Bay Reserve, Mattapoisett - Mark Rosenstein
8/11 1 Holliston - Richard Hildreth
8/20 2 Wareham - Andrew Griffith
8/28 4 Harwich - Mark Faherty

Little Glassywing

- 6/30 10 S Berkshire NABA - Rene Wendell *et al.*
7/8 2 N Worcester NABA - Wendy Howes *et al.*
7/9 21 C Berkshire NABA - Tom Tynning *et al.*
7/13 1 Old Town Hill, Newbury - Bo Zaremba
7/17 7 Northampton NABA - Mark Fairbrother *et al.*
7/22 1 MBWMA, Newbury - Marjorie Watson
7/23 3 MHF, Sharon - Eric Nielsen
8/11 1 Holliston - Richard Hildreth
8/22 1 Rough Meadows WS, Rowley - Bo Zaremba

Sachem

- 7/23 1 The Sawmill, Acushnet - Daniel Zimberlin
8/1 2 Sylvan Nursery, Dartmouth - Mark Rosenstein
8/21 1 Wareham - Andrew Griffith
8/23 5 Marion - Andrew Griffith
8/26 2 Oak Bluffs - Matt Pelikan
8/28 4 Harwich - Mark Faherty
9/1 12 Wareham - Andrew Griffith
9/2 250 Sylvan Nursery, Dartmouth - MBC Trip
9/10 1 W Tisbury - Jeremy Coleman
9/14 10 Lakeville - Andrew Griffith
9/15 1 Arlington Heights - Lisa Wolfe
9/17 2 Arlington Heights - Lisa Wolfe, Peter Loshin
9/20 25 AP Allens Neck, Dartmouth - Mark Rosenstein
9/20 3 Chatham - Mark Faherty
9/21 2 Boston Nature Center - Mark Rosenstein
9/21 1 Arlington Heights - Lisa Wolfe, Peter Loshin
10/1 8 AP, Dartmouth - Lauren Miller-Donnelly
10/4 4 Wareham - Andrew Griffith
10/4 1 Rock Meadow, Belmont - Mark Rosenstein
10/28 1 AP Field Station, Dartmouth - Michael Newton
10/29 1 Oak Bluffs - Matt Pelikan

Delaware Skipper

- 5/28 1 South Royalston - Dave Small
6/26 5 Burma Road, Milton - Mark Rosenstein
7/1 4 Falmouth NABA - Andrew Griffith *et al.*
7/6 2 Noquochoke Reserve, Dartmouth - Andrew Griffith
7/8 2 Concord NABA - Jay Shetterly *et al.*
7/8 4 N Worcester NABA - Wendy Howes *et al.*
7/15 1 October Mountain, Pittsfield - Andrew Griffith
7/17 3 Northampton NABA - Mark Fairbrother *et al.*
7/17 1 Sherborn - Mark Rosenstein
8/1 1 Rough Meadows WS, Rowley - Marjorie Watson

Mulberry Wing

- 7/8 1 N Worcester NABA - Wendy Howes *et al.*
7/8 13 Concord NABA - Jay Shetterly *et al.*
7/9 2 CST, Northborough - Steve Moore, Barbara Volkle
7/13 1 Hardwick - Wendy Howes, Alan Rawle
7/16 4 CST, Northborough - MBC Trip

7/16 15 CST, Westborough - MBC Trip
 7/17 11 Northampton NABA - Mark Fairbrother *et al.*
 7/22 1 Middleborough - Andrew Griffith
 7/24 1 Hardwick - Mark Lynch, Sheila Carroll
 8/18 1 October Mountain, Pittsfield - Gael Hurley

Hobomok Skipper

5/28 1 Andover, Lightning Tree Reservation - Howard Hoople *et al.*
 6/11 2 October Mountain, Pittsfield - Gael Hurley
 6/11 2 BMB WS, Worcester - MBC Trip
 6/21 5 October Mountain SF, Washington - Mark Rosenstein
 6/30 4 S Berkshire NABA - Rene Wendell *et al.*
 7/9 1 C Berkshire NABA - Tom Tynning *et al.*

Zabulon Skipper

5/13 1 Wareham - Andrew Griffith
 5/21 2 Adams Farm, W. Bridgewater - Don Adams
 5/24 15 CST, Westborough - Steve Moore, Barbara Volkle
 6/11 11 BMB WS, Worcester - MBC Trip
 6/21 1 October Mountain SF, Washington - Mark Rosenstein
 6/30 3 CST, Westborough - Steve Moore, Barbara Volkle
 7/26 1 Arlington Heights - Lisa Wolfe
 8/2 1 Holliston - Richard Hildreth
 8/5 5 Pembroke, Tubb's Meadow CA - Andrew Griffith
 8/12 20 Nasketucket Bay Reserve, Mattapoisett - Michael Newton
 8/19 26 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/22 14 Rough Meadows WS, Rowley - Bo Zaremba
 8/27 14 BMB WS, Worcester - MBC Trip
 8/31 3 Arlington Heights - Lisa Wolfe
 9/2 3 AP Allens Neck, Dartmouth - MBC Trip
 9/13 2 Holliston - Richard Hildreth
 9/17 2 Arlington Heights - Lisa Wolfe, Peter Loshin
 9/22 1 Holliston - Richard Hildreth

Broad-winged Skipper

7/9 2 Truro NABA - Mark Faherty *et al.*
 7/16 6 CST, Northborough - MBC Trip
 7/23 1 Forest Park, Springfield - Michele Moore
 7/30 2 Grafton - Dolores Price, Marvin St. Onge
 8/3 6 DWWS, Marshfield - Blake Dinius
 8/6 1 Arlington Heights - Lisa Wolfe

8/13 5 Grafton - Dolores Price, Marvin St. Onge
 8/22 3 Bell's Neck Rd CA, Harwich - Linnet Tse
 8/22 6 Rough Meadows WS, Rowley - Bo Zaremba
 9/2 1 AP Allens Neck, Dartmouth - MBC Trip

Dion Skipper

7/6 1 Quaboag WMA, Brookfield - Marvin St. Onge

Black Dash

7/8 1 N Worcester NABA - Wendy Howes *et al.*
 7/9 4 CST, Northborough - Steve Moore, Barbara Volkle
 7/16 2 CST, Northborough - MBC Trip
 7/17 8 Northampton NABA - Mark Fairbrother *et al.*
 8/5 1 Amherst, Brookfield Trail - MBC Trip

Two-spotted Skipper

7/4 1 New Salem - Garry & Annie Kessler
 7/9 1 C Berkshire NABA - Tom Tynning *et al.*
 7/15 2 October Mountain, Pittsfield - Andrew Griffith

Dun Skipper

6/30 2 S Berkshire NABA - Rene Wendell *et al.*
 7/1 4 Falmouth NABA - Andrew Griffith *et al.*
 7/4 3 C Franklin NABA - Mark Fairbrother *et al.*
 7/9 17 Truro NABA - Mark Faherty *et al.*
 7/9 14 C Berkshire NABA - Tom Tynning *et al.*
 7/11 12 Bart's Cobble, Sheffield - Mark Rosenstein
 7/17 42 Northampton NABA - Mark Fairbrother *et al.*
 7/18 16 MBWMA, Newbury - Bo Zaremba
 7/22 8 Holliston - Richard Hildreth
 7/26 6 Groveland - Bo Zaremba
 8/3 1 Arlington Heights - Peter Loshin
 8/10 4 Athol - Dave Small
 8/19 1 Nasketucket Bay Reserve, Mattapoisett - MBC Trip
 8/29 1 West Whately - Bill Benner
 8/31 1 Holliston - Richard Hildreth

Dusted Skipper

5/21 2 MSSF, Plymouth - Andrew Griffith
 5/25 1 Hubbardston - Mark Lynch, Sheila Carroll
 5/28 2 Montague Plains - Andrew Griffith
 5/28 2 MSSF, Plymouth - Andrew Griffith
 5/29 1 HPM, Woburn - Danielle Desmarais
 5/29 1 33 Mechanic Street, Upton - Tom Dodd
 5/30 15 Groton, Rocky Hill Sanc. - Tom Murray

5/31 4 Lancaster - Tom Murray
 6/14 1 BMB WS, Worcester - Steve Moore,
 Barbara Volkle

Pepper and Salt Skipper

5/24 1 CST, Westborough - Steve Moore,
 Barbara Volkle
 5/26 3 Shirley - Tom Murray
 6/11 3 October Mountain, Pittsfield - Gael
 Hurley
 6/11 1 BMB WS, Worcester - MBC Trip
 6/21 1 October Mountain SF, Washington -

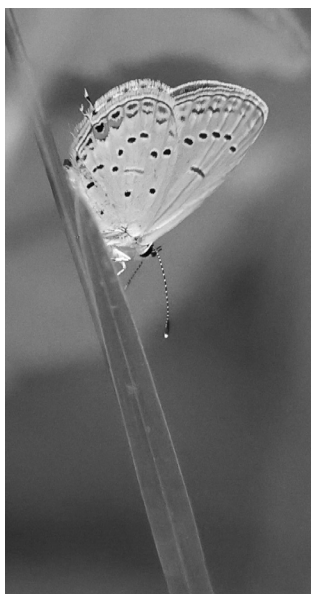
Mark Rosenstein

Ocola Skipper

7/8 1 Old Town Hill, Newbury - Bo Zarembo
 8/20 1 Arlington Heights - Lisa Wolfe
 8/21 1 Wareham - Andrew Griffith
 9/2 1 AP Allens Neck, Dartmouth - MBC Trip
 9/17 1 Westborough WMA - Zack Weber
 9/21 1 Boston Nature Center - Mark
 Rosenstein
 10/3 1 Northampton CG - Mark Rosenstein
 10/5 1 Wareham - Andrew Griffith



Mustard White
(Pieris napi),
 7/17/23,
 Windsor, MA,
 Todd Wiley



Eastern Tailed-
 Blue (*Everes*
comyntas),
 8/15/23,
 Hardwick, MA,
 Alan Rawle



Clouded
 Sulphur (white
 form female)
(Colias philodice),
 8/27/23,
 Athol, MA,
 Alan Rawle

***Polygonia interrogationis*: A Life Cycle**

By Don Adams

This began as a fascinating butterfly adventure for me on 9 June 2015. While working in our garden just at the south side of our 'butterfly pasture', I could see a medium-sized butterfly flying about the pasture as if depositing eggs, and this drew my attention. After trudging through the very grown-up pasture and getting closer to the butterfly, I could see it was a *Polygonia* sp. I had never found eggs from this butterfly group and thought this was a good opportunity to raise a few. Following the butterfly around in the thick pasture growth and seeing where she had set down an egg proved to be quite a challenge though, but I could see that the butterfly was a Question Mark.

I chased the female around the pasture for a total of four depositions I could find; two single eggs and two 'chains' as is the habit for this butterfly. I had held these finds in my hand without paying



Fig 1.

much attention to what they were on in order not to lose track of the butterfly. Now, after I gave up on chasing, I could see that four depositions for a total of seven eggs had been mostly on a plant that appeared to me to be Goldenrod

and the rest on a Bittersweet leaf. Since neither of these is a listed hostplant for this butterfly, therefore a mystery here for me to begin raising little caterpillars. That evening, I posted to the List my usual sightings of butterflies and included "a Question Mark depositing eggs" with photo of the best 'chain', (*Fig 1.*) of three eggs set down

on a Goldenrod-like leaf, and wondered if anyone else on the List would take notice of this.

By the next day both Elise Barry and Sharon Stichter did just that and sent me queries on what the leaf was. Thus began several days of back-and-forth e-mails about what to do when the eggs began to hatch. There was agreement that the leaf was likely a Goldenrod species but this wasn't much help since neither of the three of us had any literature indicating this was a hostplant for Question Marks. Elise had recalled an occasion when, at World's End, multiple Question Marks were erupting out of tangles of Bittersweet vines, but later could find no reference to this as a hostplant either. Since I had a small Chinese Elm tree in one of our gardens, this seemed to me to be the best path forward to raise caterpillars with some confidence. Still though, other ideas came up in e-mails while the eggs, on now desiccated plant bits, remained in a small plastic food container. One idea was to set up an arrangement that would include Goldenrod and Bittersweet leaves along with the Elm; an idea I had used in the past with raising other species.

On the 12th of June I wrote to Elise and Sharon "YIKES"!! No time left to deal with the host-plant issue since eggs just hatched early AM today!! Glad I was watching these carefully and have just now set all (seven wee cats) on my small Chinese Elm" with an artist's paint-brush. "Naturally I'm agonizing over my decision on this. Should I trust the butterfly or the literature here?? It's now going to



Fig 2.

be difficult to determine that the little cats accept the Elm. The best sign I'll be able to see for now is if they simply stay put on the Elm." I tied a small sleeve over the branch with the seven cats and checked this frequently throughout the day.

It didn't take as long for the little cats to relieve our concerns as I had imagined, and later that day I wrote to Elise and Sharon; "Cats are feeding on the Elm!! See photo on p. 42 (*Fig 2.*) that shows they do this by chewing a small hole through the leaf from the bottom surface. Also, five of the seven cats have migrated to the very end of the leaf stem and 'set up' in a gregarious group on its very smallest leaf." By the next day all seven cats had trekked to the same small leaf (*Fig 3.*) Both Elise and Sharon expressed some disappointment

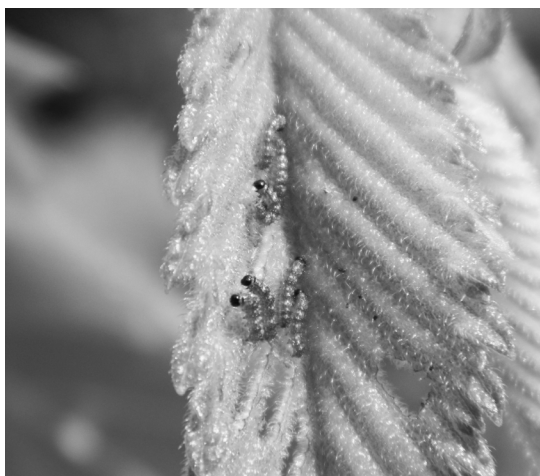


Fig 3.

that I hadn't provided a means to include samples of the Goldenrod (now identified as such) and Bittersweet leaves to see if cats would accept. But, with only the small number of cats I had recovered, this did not seem feasible to me. The next steps with this now would simply be to keep track of cat-

erpillar progress, empty frass, and move the placement to another branch when fresh new food was necessary.

The photos on p. 21 tell the rest of the story best. Caterpillar development was rapid, starting 12 June and with the first chrysalis on 7 July. The first butterfly came on 13 July. All made it to pupation and were released as adults here at 'Adams Farm'. Questions on why the parent butterfly deposited eggs as she did and whether or not caterpillars would have made do with either of these is left to another time.



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Monetary and in-kind contributions include donating money; donating goods to be sold, auctioned, or used for the club's benefit; donating the cost of a good or service; other donations.

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Submission of Articles, Illustrations, and Season Records

We encourage all members to contribute to *Massachusetts Butterflies*. Articles, illustrations, photographs, butterfly field trip reports, garden reports, and book reviews are all welcome, and should be sent to the Editor by August 31 for the Fall issue, and January 31 for the Spring issue.

Send NABA Fourth of July count results to Karl Barry at:

karl@massbutterflies.org by **August 15** for inclusion in the Fall issue. Send your season sightings and records to Mark Fairbrother at:

mark@massbutterflies.org, by **December 15** (or earlier if possible!) for inclusion in the Spring issue. Records may now be submitted via the online checklist and reporting form, which is available for download from our website at: <http://www.massbutterflies.org/club-publications.asp>

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Silvery Blue (*Glaucopsyche lygdamus*),
6/5//23, Lanesborough, MA, Gael Hurley



Sachem female (*Atalopedes campestris*),
9/14/23, Arlington, MA, Peter Loshin