



THE PEARLY-EYE 2005

Field Reports of the NABA North Jersey Butterfly Club

Volume 5
February 2006

A Butterfly Agenda for New Jersey

by Wade Wander

Thanks to NABA, and in particular the past and present leadership of our very active North Jersey chapter, the number of knowledgeable amateur lepidopterists frequenting the fields, forests, and wetlands of NJ has steadily increased over the past 15 years. So it seems like a good time to put such skilled people to work (many of them are retired and just itching for things to do). Although we have learned a lot during our growth spurt, there remains much that is not known. What follows is a discussion of suggested activities that could be pursued by the club or by individual members. To a large degree it reflects my own personal interests, which may not coincide with the interests of various members. Therefore, I encourage readers to make additional suggestions based on their own interests, which could be discussed with the club. Perhaps a discussion of proposed projects should be a regularly scheduled feature at some meetings.

(1) Without a doubt there remain many locations yet to be discovered that support Endangered, Threatened, or otherwise rare species. Part of the problem in finding them is that the flight times of many species are very brief, and before you know it's over, finished, done! I can't tell you how many years Sharon and I have said we must look for Harris' Checkerspot or Mitchell's Satyr and every year (when it's too late) we say the same thing—"next year we're **definitely** going to do it," and of course we forget again. So, what needs to be done is for the club to create a butterfly calendar to be distributed among club members and other interested people. This calendar, which could be either utilitarian and distributed among the members or, better yet, feature color photos taken by the many excellent photographers in the club, with notes on butterfly gardening, where to find butterflies, etc., and marketed for sale, would clearly indicate the flight times of rare species such as Giant Swallowtail, Harris' Checkerspot, Bronze Copper, Harvester, Academician Hairstreak, Oak Hairstreak, Frosted Elfin,

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Current Status of the Northern Metalmark in New Jersey

by Mike Bisignano

The Nature Conservancy, in its mission to preserve populations of globally-rare plants and animals, is conducting viability assessments of Northern Metalmark populations in New Jersey. Presently, the metalmark is known only from the limestone belt of Sussex and Warren Counties, with two distinct groups of individual colonies located in Stillwater/Fredon and Hardwick Townships, respectively. Referred to as metapopulations, these assemblages are vital to a species' long-term persistence as colonies in close proximity to one another offer the potential for genetic exchange and colonization of suitable, unoccupied habitat. Several outlier sites, such as the Springdale power line, do exist, but their significance in metapopulation dynamics is limited. If this population currently survives, it is unlikely that an adult in search of new habitat will locate it as it lies well beyond the expected dispersal distance of the metalmark. In cases such as this, lack of genetic diversity can have deleterious effects on a colony's survivability.

Since it supports over fifty percent of the colonies, and the only intact metapopulations found in the region, New Jersey is considered the last stronghold for this species in the Northeast, and perhaps its entire range. Therefore, the preservation of the metalmark in North America is linked directly to its continued existence here. This is no easy task however, as approximately seventy four percent of all known populations are located on privately owned lands. David Norris, who studied the New Jersey metalmark population in the late 1990s, graciously supplied TNC staff with his data. This information was invaluable as it assisted us in securing permission to access 15 sites under private ownership. Access to survey and manage the four public sites, which support approximately eight colonies, was also acquired.

The Northern Metalmark is associated with early successional habitats supported by limestone-based soils. Eastern Red Cedar glades with less than sixty percent canopy closure and limited understory shrubs are indicative of suitable habitat. The filtered sunlight provided by the open canopy provides the optimum growing conditions required by the metalmark's sole larval food-plant, Round-leaved Ragwort (*Senecio obovatus*). As the canopy becomes impenetrable to sunlight, ragwort densities decline due to the plant's shade intolerance. Nectar plants, in particular Black-eyed Susan and Butterfly-

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NABA NORTH JERSEY BUTTERFLY CLUB
2005 PROGRAM OF MEETINGS

- January 4- "Butterflies of Colorado" by Wade & Sharon Wander
- February 1- "Butterflies of the 2004 NABA Convention in Texas" by Chris Williams & Patti Murray
- March 1- "Digital Cameras for Butterfly Photography" organized by Jim Springer
- April 5- "The Mexican Extension of the 2004 NABA Convention" by Sharon & Wade Wander
- May 3- "Northern NJ Skippers of Spring" by Tom Halliwell
- June 7- "Butterflies and Wildlife of Peru" by Patti Murray
- August 2- "Butterflies, Caterpillars, and Plants" by Rick Cech
- September 6- "Metalmark Butterflies of the Great Limestone Valley" by Mike Bisignano & Mackenzie Hall
- October 4- "Butterflies of the Cascades" by Jim Springer
- November 1- "Butterflies of Oaxaca, Mexico" by Jeff Glassberg
- December 7- Member's Night

NABA NORTH JERSEY BUTTERFLY CLUB
2005 FIELD TRIPS

- May 1- Sandy Hook, Monmouth County: 10 species, 16 participants. Tom Halliwell, leader.
- May 8- Warren Grove, Burlington/Ocean Counties: 8 species, 14 participants. Chris & Paula Williams, leaders.
- May 21- Mountainside Park, Morris County: 19 species, 10 participants. Patti Pfeifer & Alice Koster, leaders.
- June 4- High Point SP, Sussex County: 17 species, 8 participants. Joe Burgiel, leader.
- June 19- Crater Lake & Flatbrookville, Sussex County: 30 species, 18 participants. Sharon & Wade Wander, leaders.
- June 25- Colliers Mills WMA, Ocean County: 27 species, 3 participants. Chris Williams, leader.
- July 4- Roxbury to Fredon, Morris/Sussex counties: 39 species, 18 participants. Tom Halliwell, leader.
- July 16- Karen Nash Memorial Butterfly Garden, Washington, Warren County: 17 species, 22 participants. Tom Halliwell, leader.
- July 23- Assunpink WMA, Monmouth County: 35 species, 6 participants. Jim Springer, leader.
- August 6- Montague, Sussex County: 33 species, 21 participants. Joe Burgiel, leader.
- August 13- Big Brook & Thompson Pks., Monmouth County: 29 species, 17 participants. Kevin Keating, leader.
- September 12 & 13- Cape May County: 40 species, 17 participants. Sharon & Wade Wander, leaders.

Metalmark (continued from p. 1)

weed, also thrive under the open canopy and enhance habitat suitability by providing food for adult butterflies. Metalmarks typically mate in small clearings that contain these elements. Females seem to prefer these openings as they can feed, mate and lay eggs without the need to travel long distances through the habitat. As a result males are often found awaiting females along the perimeter of these gaps. This rare matrix of habitat elements is threatened by a variety of factors including habitat destruction, invasion by exotic plants, and natural succession. As habitat deteriorates over time the number of metalmarks decreases until the colony is no longer viable. Abating threats by instituting site-specific management plans will maintain optimal conditions required by the Northern Metalmark.

In the summer of 2005, habitat evaluations and adult butterfly surveys were conducted during the peak of emergence. Only ten of the 23 surveyed colonies appear extant, further supporting the hypothesis that populations suddenly die out as habitat conditions become unfavorable. Habitats in the Hardwick metapopulation have been less affected by invasive plants; consequently the populations found there are larger and more robust. This metapopulation supports the two largest colonies, one located on public land, while the other is privately owned. Over 25 adults were observed at both sites in Hardwick during the survey period. In contrast, habitat degradation is widespread throughout most of the Stillwater/Fredon metapopulation. Invasive plants have significantly altered much of the habitat and several populations are threatened by development. Fortunately, the site with the largest population is publicly owned, and over 45 individuals were counted among several colonies.

The Nature Conservancy has prioritized each site and is in the process of developing management plans on a site-by-site basis. Earlier this year, TNC was awarded \$25,000 from the Natural Resources Conservation Service to apply to metalmark habitat restoration. This critical funding will allow us to implement our conservation strategies, thus providing the Northern Metalmark with prime habitat conditions in which this species can thrive. This is the first step down the metalmark's long road to a successful recovery in an ever changing and endangered landscape.

The Pearly-Eye 2005 is a publication of the NABA North Jersey Butterfly Club, a chapter of the North American Butterfly Association, Inc (NABA). It is intended to highlight the activities of the Club and to provide an overview of the status of butterflies in northern New Jersey this season (from Mercer and Monmouth counties north). Many thanks to Sharon Wander for providing invaluable editorial assistance for this issue. Next year's (2006) butterfly sightings should be sent to editor Tom Halliwell, 19 Kings Road, Netcong, NJ 07857 (tbhalliwell@worldnet.att.net).

The Club meets on the first Tuesday of the month (except in July when there is usually no regular meeting) at 7:30 p.m. in the Haggerty Education Center of the Frelinghuysen Arboretum, 53 East Hanover Avenue, Morristown, NJ. A list of field trips, directions to meetings, and other useful information can be found on the chapter's website at <http://www.naba.org> (click on chapters). The officers for 2006 are:

President, Tom Halliwell (tbhalliwell@worldnet.att.net)
Vice-President, Michael Pollock (jmpollock1@aol.com)
Treasurer, Deedee Burnside (deedeeburnside@optonline.net)
Secretary, Alice Koster (ajkoster@aol.com)

Membership in the NABA North Jersey Butterfly Club is included with annual membership in the North American Butterfly Association. To join send \$30 (\$40 family) to NABA Membership Services, 4 Delaware Road, Morristown, NJ 07960, or go to <http://www.naba.org> for further information.

Summary of the 2005 North Jersey

NABA Butterfly Counts

by Jim Springer

By the time the NABA butterfly counts rolled around this year, the cool start to the season and abrupt beginning of hot weather several weeks before the first census, had more or less evened out the cumulative conditions. The total species (71) seen on the 2005 northern NJ counts was virtually the same as last year's 70 species. With a few interesting exceptions, most counts had average numbers of species and individuals. Banded and Hickory hairstreaks stood out on the three northernmost New Jersey counts, and on the Mercer count. It will be interesting to see if censuses in other northeastern states also showed such strong numbers. It could be that their emergences were compressed this year, or perhaps it was a more widespread population bubble.

The first count of the season, Lakehurst, was held on June 18, the earliest date in its history. Average number of species (38) and individuals (539) were seen. Pearl Crescent was missed for the first time in the 11-year history of the count, but Hackberry Emperor, a new species for the count, provided nice compensation.

The number of species (24) seen on the Sandy Hook count was on the low side, with the number of individuals being about average (363) for this geographically limited census. Ten species were represented by just a single individual, including a first-time Red Admiral. The number of American Snouts crashed from a record high of 146 last year to a lone individual this year.

The high species total (48) and record number of individuals (5705) found on the Great Swamp count followed a demanding day in the field. In particular, it was quite a challenge to pick out the record 11 Hickory Hairstreaks from the unbelievable 387 Banded Hairstreaks. For perspective, 387 was more than the sum of Banded Hairstreaks found in the previous 11 years of the count. Also, the record 6 Harvesters reaffirmed Scherman-Hoffman Sanctuary as the most reliable place in the state to find this unique lycaenid.

The Mercer County count squeezed out a niche in the prime 4th of July weekend, and was able to produce a record number of species (41). It also recorded the fewest individuals (2306) in its short history, but the low number of Cabbage Whites—perhaps not a bad thing—contributed most to that overall low total. A lone Harvester was a great find and new for this three-year-old census. Other new species for the count were: Appalachian Brown, Southern Cloudywing, Common Checkered-Skipper and Swarthy Skipper. The record 65 Banded Hairstreaks echoed the strong showing from the previous-day's Great Swamp count.

While it didn't seem possible to duplicate last year's record 59 species, the Springdale count again showed why it is the premier count in the state: observers found exactly 59 species again this year! No new species were added, but a solid number of individuals (3596) were seen. Standouts were the record number of Northern Metalmarks (133) and Banded Hairstreaks (219).

The Walkkill River NWR count had an average number of species (41) and individuals (1902), plus the addition of two new species: Tawny Emperor and Crossline Skipper. Also,

Milbert's Tortoiseshells were found again on this count (and on the Springdale count) giving us growing confidence that this species has again taken up residence in the northern part of the state.

The Raritan Canal count, the longest running count (18th year) in northern NJ, showed again why one must do long term surveys to come up with a complete view of our lepidoptera fauna. Two new species were found for the count: Oak Hairstreak and Broad-winged Skipper. Otherwise, it was an average year for the number of species (40) and individuals (1306).

Thank you very much to all count compilers and observers, whose continuing efforts provide valuable information on the status of butterflies in our state.

Overview of the 2005

North Jersey Butterfly Season

by Tom Halliwell

For the second year in a row fewer butterfly sightings reached this editor's desk. As a result, coverage of our northern New Jersey region (Mercer and Monmouth counties and north) was spottier than in the past few years. Even northwestern NJ and Monmouth County, while still reasonably well-covered, elicited fewer reports. No doubt the cool spring and oppressive summer heat kept many butterflyers indoors, but I suspect, too, that five years of submitting records for The Pearly-eye has taken a toll on enthusiasm for continued reporting. Hopefully the 2006 season will see an upsurge in field reports.

The winter of 2004-2005 produced about normal temperatures and precipitation. Temperatures spiked abnormally higher for more than a week in mid-April, leading to a few record-early emergences. However, this was not to be an "early year." The last week of April turned much cooler and the thermometer remained consistently below normal, often gloomily so, right through May. Just 53 butterfly species were reported by the end of May (including 5 in the last few days) compared with 67 in 2004.

Summer temperatures arrived abruptly in early June and did not leave. This had the effect of "evening out" the butterfly season so that most species emerged within their expected time periods. The summer became very hot and dry. Some observers commented that the drought-like conditions kept butterfly numbers down, but that was certainly not the universal situation. The hot, dry conditions following the cool, wet spring did, however, appear to shorten the flight period for several summer species; e.g., Delaware Skipper, Black Dash, and Mulberry Wing.

The rarity of the season was the Monk Skipper found in Monmouth County in September. Although a first record for the state, it is rather unlikely to have arrived here from Florida on its own. Other "goodies" were Long-tailed and Common Roadside skippers, as well as, once again, numerous Milbert's Tortoiseshells. No Gray Comma this year!

The southern immigrants, so variable from year to year, were a mixed bag in 2005. Painted Ladies put on a fine show, though nowhere near the millions that splattered car windshields and

made the news headlines out west! Monarchs recovered nicely from a few down years and were once again conspicuous everywhere, especially during September migration. Common Checkered-Skippers flew widely and, in a few places, in exceptional numbers. The eight reports of Ocola Skipper were a bit above average for recent years. Rather modest influxes of Cloudless Sulphurs, Variegated Fritillaries, Fiery Skippers, and Sachems made some observers happy. But very few American Snouts or Common Buckeyes were discovered. The sole Long-tailed Skipper was in Sussex County of all places, and, for the first time since 2002, Little Yellow was not seen at all.

Among the swallowtails, Pipevine did well on the Palisades but was very scarce elsewhere, and Tiger and Spicebush flew in big numbers again. Black Swallowtails, on the other hand, were down from last year's excellent totals.

Checkered White was found regularly at Sandy Hook in September, probably the first time in several years that butterflies could "chase" the species. Falcate Orangetips were well reported, and a large population was discovered in Flatbrookville, Sussex County. Of the regular whites and sulphurs, all but Orange Sulphur seemed in normal numbers.

Harvesters were seen at three locations, including the perennial Scherman-Hoffman Sanctuary. American Copper numbers were unspectacular, but Bog Copper was found again at its one Sussex County site. Good counts of Bandeds and Hickories led the way among the hairstreaks. Acadian Hairstreak, however, barely held on at its lone Sussex County location. Oak (1) and White M (2) hairstreaks made the seasonal roster; one never knows where these will pop up. Red-banded Hairstreak declined from the big year of 2004. Eastern Pine Elfin and Brown Elfin seemed to do well, and a single Frosted Elfin sighting raised hopes for the viability of our only north Jersey colony. Spring and Summer azures were observed in healthy totals, but Appalachian Azures were way down. The population of Northern Metalmarks, on the other hand, continued high.

Great Spangled Fritillary bounced back from a couple of below-par years, and the uncommon Aphrodite turned up in four locations. Happily, one of last year's new Sussex County sites for Silver-bordered Fritillary again harbored two broods of the species. Meadow Fritillaries, though, were seen at fewer locations and in smaller numbers. Both Pearl Crescents and Baltimore Checkerspots had excellent seasons again.

Question Marks were scarce, so much so that when encountered it was worth a comment. Compton Tortoiseshell had a banner spring and summer, but few were found in the fall. Milbert's Tortoiseshell flew at nine sites in Sussex County and, at least for the time being, should be regarded as a regular resident. American Lady had a terrible year and was routinely outnumbered by its Painted Lady cousin. Red Admirals, too, were very hard to find at most times and places. Viceroy, both Hackberry and Tawny emperors, and most of our satyrs appeared to have excellent seasons. Common Ringlet seemed more local than ever, but in those local areas produced some good counts. And, as noted earlier, Monarchs were much in evidence this summer.

Silver-spotted Skipper was again seen in large numbers. Reports of Hoary Edge increased as observers discovered new and revisited known colonies. More Sleepy Duskywing

locations were found in Scrub Oak openings on the Kittatinny Ridge. Horace's Duskywing was again well reported, but numbers of the commoner Juvenal's Duskywing continue to be unexceptional. Common Sootywing produced an upsurge of reports this season. Is it time to worry about Arctic Skipper? Despite several searches this spring, this delightful sprite was located just once at its High Point SP colony. Hopefully it was just the lousy spring weather.

Swarthy Skippers came up big again at Big Brook Park in August. Though far below Swarthies in numbers, more than a dozen sites for Leonard's Skipper is noteworthy. Peck's, Tawny-edged, and Crossline skippers all exhibited good populations, but Northern Broken-Dash seemed a bit down. The rare Arogos Skipper was found just once, but it does not seem to have been looked for otherwise. Mulberry Wing, Hobomok, and Black Dash reports were down, but Zabulon, Broad-winged, and Dion skippers seemed above average. Once again Dion Skippers flew in central New Jersey after the end of the flight in Sussex County, raising interesting taxonomic questions.

Exciting skipper finds, in addition to New Jersey's first Monk Skipper mentioned earlier, were Pepper and Salt in Hunterdon County and Common Roadside in Warren County. The Pepper and Salt Skipper colony is only the second known in the state. If the Common Roadside-Skipper remains reliable at Raccoon Ridge, it will be the only accessible colony in northern New Jersey.

Many, many thanks to all who have contributed sightings.

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Northern Metalmark, Silver-bordered Fritillary, Eyed Brown, Arogos Skipper, Two-spotted Skipper, Common-Roadside Skipper, Arctic Skipper, and Pepper and Salt Skipper. To be sure, club members have already discovered "new" locations for several of these species—but surely many other locations are waiting to be discovered. (For example, a large population of Frosted Elfins was discovered in Cape May County in 2005.)

I would also include on the calendar the flight times of species not seen in NJ for many years—and thought to be extirpated—such as Silvery Checkerspot, Mitchell's Satyr, West Virginia White, and Grizzled Skipper; as well as species not documented from NJ but which could conceivably occur here, such as Early Hairstreak. Would it not be exciting to discover a location for one of these species! The discoverer would be feted to a large, sumptuous dinner, generations of NJ butterflyers would reverently speak his or her name, and presidency for life would be conferred!

(2) A special, and admittedly difficult, project for some enterprising, dedicated, and intelligent member would be to sort out the duskywings. Mottled, Persius, and Columbine duskywings were once part of our fauna but have not been reliably reported for decades. Since the caterpillar food plants for all three species are relatively common in NJ, and what appears to be suitable habitat persists—it certainly seems plausible that one or more species may yet still occur. The problem is, of course, in distinguishing the latter two species from the common and ubiquitous Wild Indigo Duskywing. The discovery of a population of any of these species would be extremely valuable.

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Annotated List of Northern New Jersey Butterflies for 2005

compiled by Tom Halliwell

Pipevine Swallowtail First discovered on new early date: 4/26 (1) Palisades Interstate Park, BER [VC]. The Palisades harbors the only known reliable colony in north Jersey. Peak counts there: (75+) 7/18 [VC], (50+) 9/13 [VC]. Away from the Palisades, only five reports of immigrants were noted from Monmouth, Morris, and Warren counties. Final sighting 10/15 (1) Blairstown, WAR [TM].

Zebra Swallowtail No sightings this year. Most recently seen last year.

Black Swallowtail No repeat of 2004's banner year. Initially found 4/18 (1) Mounts Mills, MID [CW, PW]. Spring numbers underwhelming; the only double-digit figure: (12) 5/9 Big Brook Park, MON [VC]. As usual, summer counts higher: (30) 7/6 Hobler Park, SOM [R4JC]; (23) 7/10 Wallkill River NWR, SUS [WR4JC]; (12) 7/3 Lawrence Twp., MER [MC4JC]. Last seen 10/15 (1) Sunrise Mt., SUS [JF].

Giant Swallowtail Last observed in 2000.

Eastern Tiger Swallowtail Very well reported again. Encountered first 4/16 (1) Bloomfield, ESS [VC]. Few double-figure counts in spring; peak (20) 6/5 Crater Lake Road, SUS [WW, SW]. Excellent midsummer numbers: (200+) Schooley's Mt. Park, MOR both 7/31 [JS, CW, SL] and 8/1 [VC]; (75+) 8/18 Willowood Arboretum, MOR [TH]. No reports after 10/6 (1) Culver's Lake, SUS [FW].

Canadian Tiger Swallowtail None reported since the 2001 first state record.

Spicebush Swallowtail Again seen widely and in excellent numbers. Reported initially 5/7 (1) Kittatinny Valley SP, SUS [TH]. Spring counts rather low, with the best only (7) 5/21 TNC Milford Bluffs Preserve, HUN [JS]. Summer was a different story! Schooley's Mt. Park, MOR was a hotspot: big numbers found there from 7/31 (75) [CW, JS, SL] to 8/21 (70) [JS], topping out at (156) 8/11 [VC]. Other good counts: (30+) 8/18 Willowood Arboretum, MOR [TH]; (25+) 8/7 Kittatinny Valley SP [TH]. Last noted 10/1 (1) Whittingham WMA, SUS [TH].

Checkered White First noted 9/18 (2) Sandy Hook, MON [JS]. Reported four additional times in the next week

from the same location, enabling several observers to see this hard-to-find butterfly. Last found 10/19 (3) Sandy Hook [VC].

Cabbage White Ubiquitous as usual. First seen 3/30 (1) at both Piscataway, MID [MG] and Neshanic Station, SOM [MP]. No triple-figure counts until 6/17 (200+) Palisades Interstate Park, BER [VC]. Peak counts: (500+) 7/2 Harding Twp., MOR [GS4JC]; (500+) 9/19 Thompson Park, MON [JM]; (300) 6/25 Hilltop Reservation, ESS [KD]. Final sighting 11/30 (1) Somerset, SOM [PW], a new late date.

Falcate Orangetip Well reported from Monmouth, Bergen, Morris, Warren, and Sussex counties. First found 4/17 (3) Mountainside Park, MOR [AB, JG, et al.]. Top count an excellent (51) 6/1 Flatbrookville, SUS [JB, MB]. Other double-digit locations: (20) 4/28 Wildcat Ridge WMA, MOR [CB]; (13) 4/28 Waterloo, SUS [MB, JB]; (10) 5/7 Assunpink WMA, MON [CW, PM, et al.]. Final sighting 6/5 (1) Raccoon Ridge, WAR [TM].

Clouded Sulphur Initially found 4/5 (1) Kittatinny Valley SP, SUS [LG]. Only double-digit spring counts: (16) 4/28 Big Brook Park, MON [VC]; (11) 5/16 AT lands, Vernon, SUS [VC]. Summer counts peaked at (262) 7/10 Wallkill River NWR, SUS [WR4JC], with (50) 7/9 Frankford Twp., SUS [S4JC] a distant second. Last noted 11/8 (1) Newton, SUS [MB].

Orange Sulphur Rather scarce in spring. Seen first 4/14 (1) Big Brook Park, MON [VC], with top spring count also there 4/28 (10) [VC]. Summer counts also below normal: (139) 7/3 Martin Tract, MER [MC4JC]; (137) 7/2 Troy Meadows, MOR [GS4JC]; (82) 7/10 Wallkill River NWR, SUS [WR4JC]. Seen last 11/30 (1) Somerset, SOM [PW].

Cloudless Sulphur No reports of this immigrant until 8/25 (1) Sandy Hook, MON [KK]. Most subsequent reports, as expected, along the coast, although at least four sightings well inland. All counts better than one or two came from Sandy Hook: e.g., 9/18 (16) [VC]; 9/21 (12) [KK]. Final observation a latest-ever 11/4 (1) Sandy Hook [SB].

Little Yellow Apparently no immigrants pushed north to northern NJ this year. At least none were reported! Last found in 2004.

Harvester Five reports from three locations. Noted initially 7/2 (6, the high count) Scherman-Hoffman Sanctuary, SOM/MOR [GS4JC]. Subsequent observations from this reliable colony 7/3 (3) [MP, JK] and 7/31 (1) [MP]. Additional sightings: 7/3 (1) Roebling Park, MER [MC4JC] and 8/21 (1) Dunfield Creek, WAR [TM].

American Copper Not as well reported as last year. First seen 4/14 (1) Sandy Hook, MON [KK]. Only two spring counts reached double figures: (30+) 5/10 Sandy Hook [KK, VC]; (15) 6/4 High Point SP, SUS [NABA]. Other than the mammoth (203) 6/29 Sandy Hook [SH4JC], summer high counts proved unspectacular: (15) 7/9 Crater Lake Road, SUS [S4JC]; (15) 8/21 Walpack Twp., SUS [SW, WW]; (14) 7/16 Flatbrookville, SUS [MB, JB]. Final observation 10/1 (1) Sandy Hook [PW, SL].

Bronze Copper Still not recorded since 1996.

Bog Copper One report: 7/7 (5) TNC Mashipacong Bog Preserve, SUS [MV, MBi, JS, et al.]. Central NJ localities apparently went unchecked this year.

Coral Hairstreak Seen in at least nine locations in Sussex, Morris, Mercer, and Monmouth counties. Initially reported 6/23 at both Sunrise Mt., SUS (2) [WW, SW] and AT lands, Vernon, SUS (1) [AB]. Double-digit counts: (22) 6/29 Sandy Hook, MON [SH4JC]; (12) 7/4 Roxbury Twp., MOR [NABA]. Noted last 7/9 (2) Frankford Twp., SUS [S4JC].

Acadian Hairstreak Found just once at the Sparta Twp. site which has been the sole location for the species in recent years. A single individual noted 7/9 [S4JC].

Edwards' Hairstreak Noted at four Sussex County locations. First sighting 6/23 (25) Sunrise Mt. [SW, WW]. Peak count also there: 6/25 (27) [JB, MB]. Other locations: Springdale, SUS 7/1 (10) [TH] and 7/9 (1) [S4JC]; Crater Lake Road 6/24 (1) [MB, JB] and 7/9 (3) [S4JC]; Swartswood SP 7/9 (2) [S4JC].

Banded Hairstreak A second consecutive excellent year! First found 6/17 (15+) Palisades Interstate Park,

BER [VC]. Highest numbers superb: (244) 7/2 Troy Meadows, MOR [GS4JC]; (126) 7/10 Walkill River NWR, SUS [WR4JC]; (75) 7/9 PVT @ Stillwater Road, SUS [S4JC]. At least five other sites from Monmouth to Sussex counties noted (25+) individuals in late June and early July. Reported last 7/26 (1) Poricy Park, MON [VC].

Hickory Hairstreak Another good year with reports from Sussex, Morris, Passaic, and Monmouth counties. First observed 6/26 (3) Sparta Mt. WMA, SUS [CW, TH, et al.]. Peak counts excellent: (25) 7/10 Walkill River NWR, SUS [WR4JC]; (18) 7/9 Whittingham WMA, SUS [S4JC]. A pleasant surprise was a Coastal Plain find of (4) 7/12 Allaire SP, MON [KK, JM]. Last encountered 7/22 (1) Schooley's Mt. Park, MOR [VC].

Striped Hairstreak Reported from Sussex, Morris, Essex, Mercer, and Monmouth counties between 6/26 (1) Hatfield Swamp, ESS [KD] and 7/24 (1) Wildcat Ridge WMA, MOR [CW, PW]. Maximum count (7) 7/4 Wildcat Ridge WMA [JS, CW, et al.].

Oak Hairstreak A single observation: 7/16 (1) Pigeon Swamp SP, MID [R4JC], a new late date. This enigmatic species rarely garners more than one or two reports per year.

Brown Elfin Found at six locations in Sussex and Warren counties, an upswing from the past few years. Initially seen 4/17 (8) Crater Lake Road, SUS [WW, SW], also site of top count (9) 6/1 [JB, MB]. Last observed 6/5 (1) Crater Lake Road [SW, WW], a surprisingly long emergence for the species!

Frosted Elfin Very welcome was the report of one individual of this threatened species at Assunpink WMA, MON on 5/14 (SEP). Others searched to no avail (and the butterfly was missed entirely last year.) It is encouraging that this traditional (and only) northern NJ colony persists— however tenuously!

Henry's Elfin As usual, all dated reports came from Sandy Hook, MON. Observed between 4/17 (6) [PW, CW] and 5/14 (4) [TH]. Top count a rather paltry (12) 5/1 [NABA]. Of interest is an undated report from late April or early May at Allaire SP, MON [JM]. It would be very worthwhile to attempt to pin down a second reliable colony next year.

Eastern Pine Elfin Well reported

from nine sites in Sussex, Warren, and Monmouth counties. First noted 4/17 (3) Flatbrookville, SUS [SW, WW], a new early date by more than a week. Found in typically small numbers; the only other report reaching (3) was 4/29 TNC Arctic Meadows Preserve, SUS [TH, ABA]. Final observation: 6/1 (1) Flatbrookville [MB, JB].

Juniper Hairstreak Reported from just six locations in Monmouth, Somerset, Warren, and Sussex counties. Spring brood first seen 4/15 (2) Sandy Hook, MON [KK], where top count (7) flew on 5/10 [KK, VC]. The sole spring individual away from Sandy Hook was the last reported: 5/19 (1) Walpack Twp., SUS [TH, et al.]. Summer flight noted 7/16 (1) at both Hobler Park, SOM [R4JC] and Karen Nash Butterfly Garden, WAR [NABA]. Peak count an excellent (47) 7/21 Sandy Hook [KK]. Final sighting 8/6 (1) Montague Twp., SUS [NABA].

White M Hairstreak Two very widely spaced reports for this unpredictable butterfly: 5/17 (1) Montclair, ESS [AB], and 9/4 (1) Somerset, SOM [MG].

Gray Hairstreak Although reported from most of northern NJ's counties, seen, as usual, in very small numbers. First found 4/17 (1) at both Mountainside Park, MOR [AB, JG, et al.] and Sandy Hook, MON [KD]. The only sightings of more than two individuals were: (8) 8/27 Assunpink WMA, MON [PW, CW, JS] and (3) 7/2 Great Swamp NWR, MOR [GS4JC]. Encountered last 10/19 (1) Sandy Hook [VC].

Red-banded Hairstreak Poorly reported from Monmouth, Middlesex, Somerset, Essex, Morris, and Sussex counties. First seen 5/10 (2) Assunpink WMA, MON [TF, KWa]. A far cry from last year's big numbers; no reports exceeded two butterflies in 2005! One bright spot was a worn individual that made it to Kittatinny Valley SP, SUS 8/26 [TH]. Last encountered 10/1 (1) Thompson Park, MON [AB].

Eastern Tailed-Blue Well reported across the region. Initially observed 4/17 (1) Mountainside Park, MOR [AB]. Top spring count also there: (75) 5/13 [DB, FW]. Good summer numbers again: (100+) 9/1 Troy Meadows, MOR [VC]; (45) 7/2 Great Swamp NWR, MOR [GS4JC]; (40+) 9/5 Crater Lake Road, SUS [SW, WW]. Last seen 10/5 (1) Kittatinny Valley SP, SUS [TH].

Spring Azure complex Again found in healthy numbers. Initial sighting 4/5 (1) Mendham Twp., MOR [TBJ]. Top counts: (60+) 4/11 Great Swamp NWR, MOR [BW]; (38) 4/17 Sparta Mt. WMA, SUS [TH]; (25+) 4/17 Mountainside Park, MOR [AB]; (25) 5/8 Catfish Tower, WAR [JS, TH]. Last reported 6/11 (3) Mountainside Park [JH].

"Summer Azure" Reported across north Jersey beginning 6/11 (1) Stokes Forest, SUS [AB]. Only three double-figure counts, all in late June: (30+ at one puddle) 6/29 Whittingham WMA, SUS [TH]; (13) 6/21 AT lands, Vernon, SUS [VC]; (10) 6/18 Frankford Twp., SUS [TH]. Later broods not as numerous although small numbers noted through 9/19 (5) Thompson Park, MON [JM].

Appalachian Azure Noted at six locations in Hunterdon, Somerset, and Sussex counties, but in very poor numbers. First encountered 5/17 (1) Culver's Lake, SUS [FW]. Top counts only (3) 5/21 Tower Hill Reserve, HUN [JS] and (3) 6/5 Charlestown Reserve, HUN [JS]. Final sighting a new late date: 6/30 (1) Sunrise Mt., SUS [MB].

Northern Metalmark Continued efforts by TNC to identify and manage sites for this butterfly (see article on p. 1) led to metalmark sightings at about a dozen locations in Sussex and Warren counties this year. Discovered 6/29 (12) PVT @ Stillwater Road, SUS [TH]. Highest counts: (73) 7/9 White Lake, WAR [S4JC]; (45) 7/9 PVT @ Stillwater Road [S4JC]; (20) 7/16 Kittatinny Valley SP, SUS [TH]. The White Lake & PVT populations are actually composed of several individual colonies. Last seen 7/21 (25) at White Lake [MBi].

American Snout While 2004 was a record-setting season, this year most observers saw zero snouts. Just three sightings reported: 6/29 (1) Sandy Hook, MON [SH4JC]; 7/21 (1) Sandy Hook [KK]; and 8/10 (1) AT lands, Vernon, SUS [VC].

Variiegated Fritillary A modest flight of these immigrants graced the region; reports received from Sussex, Warren, Morris, Middlesex, Somerset, and Monmouth counties. First sighting: 6/6 (1) Troy Meadows, MOR [VC]. No further reports until 7/21 (2) Sandy Hook, MON [KK]. Nice high counts: (7) at Assunpink WMA, MON on 7/23 [NABA] and 8/27 [PW, JS, CW]. Last seen 11/4 (1) Schooley's Mt. Park, MOR [VC].

Great Spangled Fritillary Very widely reported beginning 6/6 (1) Troy Meadows, MOR [VC]. Numbers improved over past few years: (87) 7/10 Walkkill River NWR, SUS [WR4JC]; (85) 7/10 Schooley's Mt. Park, MOR [JS]; (50+) 7/2 Scherman-Hoffman Sanctuary, SOM [GS4JC]. Final sighting 10/5 (1) Kittatinny Valley SP, SUS [TH].

Aphrodite Fritillary Five sightings at four Sussex County locations. First was 7/7 (1) AT lands, Vernon [VC], followed in quick succession by 7/9 (2) Flatbrook-ville [S4JC], 7/9 (1) Whittingham WMA [S4JC], and 7/11 (1) Walpack Twp. [TS]. Final report a month later: 8/10 (1) AT lands, Vernon [VC].

Silver-bordered Fritillary Found at three locations in Middlesex and Sussex counties. Earliest-ever were (5) 5/14 Mounts Mills, MID [JS, CW, et al.]. Subsequent-brood observations in Middlesex county were: 7/16 (1) Helmetta [R4JC] and 8/17 (3) Mounts Mills [PW, CW, JS]. Happily, the Crater Lake, SUS colony discovered last year remained active, with observations 6/5 (4) [WW, SW], 6/9 (1) JB, MB], and 9/4 (1) [FK].

Meadow Fritillary Fewer reports and lower numbers this year. Noted from Sussex, Warren, Morris, and Monmouth counties. Initially found 4/20 (1) AT lands, Vernon, SUS [VC]. Top spring count only (7) 5/19 White Lake, WAR [JB, MB]. Second brood discovered by 6/13 (1) Walpack Twp., SUS [TH], peaking at (35) 6/23 Walkkill River NWR, SUS [AB]. Third brood first seen 7/28 (2) Walkkill River NWR [LP], but highest numbers only (5) 8/10 AT lands, Vernon [VC]. Last found 9/19 (1) Thompson Park, MON [JM].

Harris' Checkerspot Once again among the missing. Last seen in 2003.

Pearl Crescent Reported throughout and in good numbers. First seen 4/28 (2) at both Thompson Park, MON [VC] and Big Brook Park, MON [VC]. Best spring count (40+) 5/13 Mountainside Park, MOR [FW, DB]. As usual, summer numbers much higher: (500+) 9/1 Troy Meadows, MOR [VC]; (446) 7/10 Walkkill River NWR, SUS [WR4JC]; (325) 7/2 Troy Meadows [GS4JC]; (275) 7/2 Great Swamp NWR, MOR [GS4JC]. Final observation 11/6 (4) Somerset, SOM [PW].

Northern Crescent No reports since 1996.

Baltimore Checkerspot Seven

sites reported from Sussex and Morris counties. Initially found 6/13 (2) AT lands, Vernon, SUS [VC]. This same location provided superb maximum counts of (100+) on 6/21 and 6/27 [VC]. Next highest count: (25) 7/9 Frankford Twp., SUS [S4JC]. Last sighting 7/11 (1) Kittatinny Valley SP, SUS [TH].

Question Mark Extremely poor showing this year! While found across the region, there were fewer than 25 reports – this for a butterfly normally thought to be rather common. First seen quite early: 4/7 (1) Wildcat Ridge WMA, MOR [CB]. All reports, except two, of single individuals. The exceptions: (2) AT lands, Vernon, SUS, 6/21 and 9/19 [both VC]. First orange "winter" form 8/18 (1) Willowood Arboretum, MOR [TH]. Last observed 10/19 (1) Sandy Hook, MON [VC].

Eastern Comma Widely reported, but not quite as common as recent years. First awakened hibernators seen 3/30 at three sites: Somerset, SOM (1) [PW]; Montclair, ESS (2) [AB]; and Newton Meadows, SUS (1) [JZ]. Highest spring count (8) 4/6 Walpack Twp., SUS [TH, ABa]. Dark summer form first reported 6/12 (1) Kittatinny Valley SP, SUS [TH]. Peak summer numbers: (30) 7/10 Walkkill River NWR, SUS [WR4JC]; (10) 6/18 Walpack Twp. [TH, JZ]. Orange "winter" form noted by 8/21 (3) Walpack Twp. [TH]. Last noted 11/14 (1) Neshanic Station, SOM [MP].

Gray Comma Following two consecutive years with sightings of this vagrant, the situation reverted to "normal" in 2005. No reports!

Compton Tortoiseshell Fairly well reported from Sussex, Morris, and Passaic counties. Initial sightings: 4/5 (3) Weis Ecology Center, PAS [*vide* KR] and 4/5 (1) Cranberry Lake, SUS [ABa]. At least 13 additional reports of overwinterers through 5/29 (1) Quick Pond, SUS [WW, SW]. The year's new brood discovered 6/24 (3) Walpack Twp., SUS [TH]. Excellent high counts: (15) 6/27 Walpack Twp. [ABa]; (11) 7/4 Wildcat Ridge WMA, MOR [JS, FP, et al.]; (6) 7/9 Crater Lake Road, SUS [S4JC]. Only two autumn sightings, the last 10/17 (1) Sunrise Mt., SUS [FW, HB].

Mourning Cloak Widely and well reported. First overwintering individual seen 3/7 (1) Somerset, SOM [BM]. Best spring counts: (8) 4/11 Crater Lake Road, SUS [TH]; (5) 3/30 Montclair, ESS [AB]. Worn, presumed overwinterer, as late as 6/4 (1) Raccoon Ridge, WAR

[FP]. First fresh brood not until 6/27 (3) AT lands, Vernon, SUS [VC]. Two nice concentrations reported: (13) 7/21 Rifle Camp Park, PAS [VC] and (10) 7/9 Walpack Twp., SUS [S4JC]. Final sighting 11/5 (1) Sandyston Twp., SUS [WW, SW].

Milbert's Tortoiseshell Reported from nine Sussex County locations. Almost certainly bred at Walkkill River NWR and Walpack Twp. Observed first 4/10 (1) Walkkill River NWR [TH], a new early date by three weeks. No further reports until 6/10 (1) Hardyston Twp. [DM]. Top counts: (10) 7/9 Walpack Twp. [S4JC]; (5) 8/6 Old Mine Road @ Jager Road [NABA]. Last reported 8/21 (1) Walpack Twp. [WW, JB, et al.].

American Lady A very down year! Although widely reported, most of the time outnumbered by Painted Ladies. Initially seen 4/21 (1) Sandy Hook, MON [KK]. Only double-figure count in spring: (10) 5/21 Mountainside Park, MOR [NABA]; no others even close. Summer numbers just as bad; highest count only (6) 8/13 Big Brook Park, MON [NABA]. Last seen 10/15 (1) Kittatinny Valley SP, SUS [TH].

Painted Lady Well reported. First noted 4/5 (1) at both Franklin Lakes, BER [JR] and Somerset, SOM [PW], a new early date. Spring counts peaked at (4) 6/4 Hilltop Reservation, ESS [KD]. Widespread across the region in summer. Highest numbers: (15) 9/8 DeKorte Park, BER [VC]; (11) 7/25 Dorbrook Park, MON [VC]; (10) 7/10 Walkkill River NWR, SUS [WR4JC]. Final sighting 11/4 (3) Sandy Hook, MON [AB].

Red Admiral An awful year! Usually a common butterfly, this year the species was far more often missed than seen. Discovered 4/9 (2) Lenape Park, UNI [JK], tying the early date. Highest count: (40) 7/10 Walkkill River NWR, SUS [WR4JC], always the species stronghold in the region. No other counts reached double figures. Last seen 10/18 (1) Sandy Hook, MON [SB].

Common Buckeye Very scarce in 2005. Just seven reports from Monmouth and Somerset counties, beginning 7/21 (1) Sandy Hook, MON [KK]. All sightings of single individuals. Last observed 11/4 (1) Sandy Hook [AB].

"White Admiral" Just one report received this year: 6/19 (1) Walpack Twp., SUS [NABA]. This contrasts

strongly with the eleven noted in 2004.

"Red-spotted Purple" Widespread, but no huge assemblages reported. First sighting 5/28 (2) Flatbrookville, SUS [JZ]. Best first-brood counts: (25) 6/19 Walpack Twp., SUS [NABA]; (17) 6/24 Crater Lake Road, SUS [JB, MB]. Second-brood numbers, as usual, better in central NJ: (15) 7/23 Assunpink WMA, MON [NABA]. The (13) found at Assunpink WMA on 8/27 was tops for the third brood [JS, PW, CW]. Last encountered 9/28 (1) Thompson Park, MON [VC].

Viceroy Good numbers reported around the region. First seen 6/5 (1) White Lake, WAR [TM] and 6/5 (1) Crater Lake, SUS [SW, WW]. First brood high count (10) 7/10 Wallkill River NWR, SUS [WR4JC]. Second brood topped out at (11) 8/10 AT lands, Vernon, SUS [VC]. Third brood maxima: (9) 9/6 Big Brook Park, MON and (9) 9/7 Thompson Park, MON [both VC]. Last found 10/3 (2) Thompson Park [SB].

Hackberry Emperor Another fine year! First encountered 6/6 (1) Schooley's Mt. Park, MOR [VC]. Highest early-brood count (10) 6/19 Walpack Twp., SUS [NABA]. Second brood out by 7/21 (1) Sandy Hook, MON [KK]. Peak second-brood numbers: (15) 8/25 Sandy Hook [KK]; (10) 8/6 Montague Twp., SUS [NABA]. Last sighting 9/19 (1) AT lands, Vernon, SUS [VC].

Tawny Emperor First brood well reported between 6/19 (1) Walpack Twp., SUS [NABA] and 8/6 (4) Montague Twp., SUS [NABA]. Top counts excellent: (30) 6/27 Whittingham WMA, SUS [ABa]; (8) 6/24 Walpack Twp., SUS [TH]; (7) 7/24 Wildcat Ridge WMA, MOR [PW, CW]. Two reports of second brood: 8/25 (1) Sandy Hook, MON [KK]; & 9/11 (1) Big Brook Park, MON [CW, JS, PW].

Northern Pearly-eye Very well reported again; this year from Sussex, Morris, Passaic, and, surprisingly, Monmouth counties. Initial sighting 6/21 (1) AT lands, Vernon, SUS [VC]. Maximum counts: (12) 6/28 Jockey Hollow, MOR [CH]; (11) 7/9 White Lake, WAR [S4JC]; (10) 7/9 Andover Twp., SUS [S4JC]. Seemingly out of range was one noted 7/26 Poricy Park, MON [VC]. Last found 8/10 (1) AT lands, Vernon [VC].

Eyed Brown Seven 2005 reports. All found at the AT lands, Vernon, SUS between 6/13 (4) [VC] and 7/9 (2) [VN,

GN]. Peak count: (25+) 6/21 [VC].

Appalachian Brown Very widely reported from Monmouth to Sussex counties. First encountered 6/11 at both Kittatinny Valley SP, SUS (3) [TH] and White Lake, WAR (3) [TM]. Top numbers: (32) 7/2 Great Swamp NWR, MOR [GS4JC]; (29) 7/2 Troy Meadows, MOR [GS4JC]; (20) 7/9 Andover Twp., SUS [S4JC]. Last found 9/4 (2) Trout Brook WMA, SUS [TS].

Little Wood-Satyr Good numbers reported across northern NJ. First observed 5/19 (1) Stillwater Twp., SUS [MB, JB]. Peak first-brood tallies: (100+) 6/4 High Point SP, SUS [NABA]; (50+) 6/6 Schooley's Mt. Park, MOR [VC]. Fresh second brood noted by 6/23 (1) Thompson Park, MON [VC]. Late-brood maxima: (71) 7/2 Great Swamp NWR, MOR [GS4JC]; (69) 7/2 Troy Meadows, MOR [GS4JC]. Latest observations 7/26 (4) Allaire SP, MON [KK, JM] and 7/26 (1) Kittatinny Valley SP, SUS [TH].

Common Ringlet Found only in Sussex, Warren, and Morris counties this year. Earliest sightings on 5/19: (7) Stillwater Twp., SUS [JB, MB]; (8) White Lake, WAR [MB, JB]; and (1) Walpack Twp., SUS [TH]. Spring-brood top counts (50) 6/4 High Point SP, SUS [NABA]; (25+) 5/31 AT lands, Vernon, SUS [VC]. Last of first brood noted 6/19 (5) Crater Lake Road, SUS [NABA]. Summer brood first reported 7/22 (3) Schooley's Mt. Park, MOR [VC]. Best numbers just (18) 8/6 Montague Twp., SUS [NABA]. Final observation 8/26 (1) AT lands, Vernon [VC].

Common Wood-Nymph First reported 6/13 (1) AT lands, Vernon, SUS [VC], a new early date. Top numbers: (368) 7/10 Wallkill River NWR, SUS [WR4JC]; (120) 7/9 Whittingham WMA, SUS [S4JC]; (114) 7/2 Great Swamp NWR, MOR [GS4JC]. No double-digit counts after 8/1, although last individual not recorded until 9/19 (1) AT lands, Vernon, SUS [VC].

Monarch Gratifyingly evident this year after such an awful showing in 2004. Discovered 5/12 (1) Flatbrookville, SUS [MB, JB], but not seen regularly until early July. Non-migratory highs much improved: (28) 7/10 Wallkill River NWR, SUS [WR4JC]; (25) 8/15 Thompson Park, MON [VC]; (21) 8/10 AT lands, Vernon, SUS [VC]. At least a dozen other single-location reports

reached double figures prior to migration. Migration counts also up: (371) 9/19 Thompson Park [JM]; (250+) 9/18 Sunrise Mt., SUS [*fide* FW]; (151) 9/27 Sandy Hook, MON [KK]. Last sighting 11/13 (1) Frankford Twp., SUS [DT].

Queen No sightings this year. Last found in 2003.

Silver-spotted Skipper Widely and well reported again. Initially found 5/7 (1) Assunpink WMA, MON [PW, PM, et al.]. Spring counts low, as usual, topping out at (10) 6/11 Mountainside Park, MOR [NABA]. Summer numbers better: (100+) 8/27 Assunpink WMA [CW, PW, JS]; (75+) 8/18 Willowood Arboretum, MOR [TH]; (56) 7/2 Washington Valley, MOR [GS4JC]. Last sightings 9/21 (2) Willowood Arboretum [TH], and 9/21 (1) Fredon Twp., SUS [WW, SW].

Long-tailed Skipper One report of this rare immigrant from the south: 8/29 (1) Kittatinny Valley SP, SUS [TH, LG].

Hoary Edge Numerous sightings from nine locations in Sussex, Morris, and Essex counties. Initial report 6/11 (1) Kittatinny Valley SP, SUS [TH]. Top counts: (11) 6/12 Wildcat Ridge WMA, MOR [CW, PW, JS]; (5) 6/30 Kittatinny Valley SP [TH]. Final sighting 7/16 (1) Kittatinny Valley SP [TH].

Southern Cloudywing Found at a surprising seven locations in Monmouth, Middlesex, Mercer, Somerset, Morris, and Sussex counties. Initial sighting 6/11 at both Somerset, SOM (12, the high count) [PW, CW] and Mountainside Park, MOR (1) [JH]. First brood last seen 7/9 (1) Crater Lake Road, SUS [S4JC]. The rarer second brood yielded two reports: 7/23 (4) Assunpink WMA, MON [NABA], and 8/2 (2) Mounts Mills, MID [JS, VC].

Northern Cloudywing Widely reported in the northern counties. First seen 5/21 (12, the highest count) TNC Milford Bluffs Preserve, HUN [JS]. The only other double-digit tally was (11) 6/12 Wildcat Ridge WMA, MOR [PW, CW, JS]. Last found 7/9 (1) Andover Twp., SUS [S4JC].

Dreamy Duskywing Well reported from Monmouth to Sussex counties. Initial sighting 5/7 (1) Assunpink WMA, MON [PW, PM, et al.]. Maximal counts: (16) 5/19 Sourland Mts., SOM [BM, PM]; (15) 5/29 Wildcat Ridge WMA, MOR [TM]; (12) 5/21 Cushetunk Mt. Preserve, HUN [JS]. Last noted 6/26 (1) Sparta Mt. WMA, SUS [CW, TH, JK, et al.], a new

late date by more than a week.

Sleepy Duskywing Eight reports from five locations in Sussex, Warren, and Hunterdon counties. A few first-time sites reflect recent understanding that Sleepy Duskywings can be found at Scrub Oak openings all along NW NJ's Kittatinny Ridge. First seen 4/17 (5) Crater Lake Road, SUS [WW, SW], a new early date. Peak counts: (28) 5/1 TNC Milford Bluffs Preserve, HUN [JS], a location not on Kittatinny Ridge; (7) 5/8 Cattfish Tower, WAR [JS, TH]. A new late date set on 6/1 (1) Crater Lake Road [JB, MB].

Juvenal's Duskywing Widely reported, but not in the numbers of several years ago. First encountered 4/14 (1) Big Brook Park, MON [VC]. Best numbers: (12) 5/11 TNC Sussex Swamp Preserve, SUS [TH]; (10+) 5/10 Assun-pink WMA, MON [TF, KWa]; (10) 5/1 Wildcat Ridge WMA, MOR [CB]. Last found 6/13 (1) Walpack Twp., SUS [TH].

Horace's Duskywing Very well reported for the second consecutive year, with 15 sites noted from across northern NJ. Spring brood reported twice: 5/10 (1) Assunpink WMA, MON [TF, KWa], a new early date by a month; and 6/12 (1) Pyramid Mt., MOR [WW, SW]. Summer brood first observed 7/2 (3) Great Swamp NWR, MOR [GS4JC] and 7/2 (1) Scherman-Hoffman Sanctuary, SOM [GS4JC]. Peak counts excellent: (15) 7/23 Assunpink WMA [NABA]; (7) 7/26 Allaire SP, MON [JM, KK]. Found last 8/25 (1) Hatfield Swamp, ESS [VC].

Wild Indigo Duskywing Widely reported, but in rather poor numbers. Initially seen 5/2 (1) Somerset, SOM [PW]. Best spring counts: (6) 5/7 Camp Mohican, WAR [WW, SW] and (6) 6/4 High Point SP, SUS [NABA]. Summer maxima: (36) 9/1 Troy Meadows, MOR [VC]; (30) 7/16 Princeton Airport, MER [R4JC]; (18) 7/3 Martin Tract, MER [MC4JC]. Last sighting 9/28 (1) Thompson Park, MON [VC].

Common Checkered-Skipper Well reported from around the region, and in excellent numbers. Two spring sightings: 5/18 (1) Assunpink WMA, MON [TM] and 6/4 (3) Franklin Twp., SOM [PW, MP]. First summer report 7/3 (1) Martin Tract, MER [MC4JC]. Regional hotspots were Pigeon Swamp SP, MID and Thompson Park, MON. A fabulous (100+) flew at Pigeon Swamp on 9/21

[CL] with (40) there on 9/24 [CW, PW, SL]. Thompson Park peaked at (22) on 8/15 [VC]. The only other site reaching double figures was White Lake, WAR (11) on 9/4 [TH]. Last found 11/14 (1) at both Neshanic Station, SOM [MP] and Somerset, SOM [PW], a new late date.

Common Sootywing More widely reported than usual. Spring brood observed only at Assunpink WMA, MON from 5/10 (1) to 5/18 (1) [both KWa, TF] with (3) there 5/14 [CW, JS, et al.]. Summer brood discovered 6/27 (1) DeKorte Park, BER [KW], with a peak count of (4) 7/10 Walkkill River NWR, SUS [WR4JC]. Last seen 9/19 (1) AT lands, Vernon, SUS [VC], a new late date by more than a week.

Arctic Skipper Disappointingly, just a single report from the High Point SP, SUS colony: 5/30 (1) [JZ]. The species was searched for several times without further success. Decent numbers have not been reported since 2001.

Swarthy Skipper Noted from eight locations in Monmouth, Mercer, Middlesex, Somerset, and Morris counties. First brood elicited just four reports from 6/29 (1) Sandy Hook, MON [SH4JC] to 7/22 (3) Schooley's Mt. Park, MOR [VC]. Second brood first encountered 8/2 (1) Mounts Mills, MID [JS, VC]. Top count a staggering (500++) Big Brook Park, MON [NABA]. No other location reached double figures. Last seen at Big Brook Park 9/11 (12) [JS, CW, PW].

Least Skipper Not reported in especially big numbers. Found initially 6/4 (6) Franklin Twp., SOM [MP, PW]. First-brood maximum numbers: (75) 7/2 Washington Valley, MOR [GS4JC]; (71) 7/2 Troy Meadows, MOR [GS4JC]; (50+) 6/29 Schooley's Mt. Park, MOR [VC]. First brood seen through at least 7/10 (16) Walkkill River NWR, SUS [WR4JC]. Second brood first noted 7/12 (3) Allaire SP, MON [JM, KK]. Peak second-brood count just (28) 8/10 AT lands, Vernon, SUS [VC]. Final observation 9/28 (1) Kittatinny Valley SP, SUS [TH].

European Skipper Initial sighting 6/3 (1) Somerset, SOM [MG]. Peak counts: (800) 6/23 Whittingham WMA, SUS [MB, JB]; (500+) 6/18 Walpack Twp., SUS [TH]; (200+) 6/24 Walkkill River NWR, SUS [KW]. Last seen 7/10 at both Walkkill River NWR (4) [WR4JC] and Schooley's Mt. Park, MOR (16) [JS].

Fiery Skipper A rather modest influx of this southern immigrant into Sussex, Essex, and Monmouth counties. First seen 7/9 (2) Newton Meadows, SUS [S4JC]. All sightings were of one or two individuals except (5) 8/14 Monmouth Beach, MON [SB]. Final observation 11/1 (1) Kittatinny Valley SP, SUS [ABa].

Leonard's Skipper Reported from more than a dozen sites in Sussex, Warren, Morris, Somerset, Bergen, and Monmouth counties. First seen 8/11 (1) Schooley's Mt. Park, MOR [VC], a new early date. Top counts: (6) 9/6 Big Brook Park, MON [VC]; (5) 9/7 Thompson Park, MON [VC]; (3) 9/1 Fredon Twp., SUS [WW, SW]. Final sighting a latest-ever 9/28 (1) Thompson Park [VC].

Cobweb Skipper Just three reports received: 5/13 (10+) Mountainside Park, MOR [DB, FW]; 5/16 (1) AT lands, Vernon, SUS [VC]; and 5/21 (12) Mountainside Park [NABA].

Indian Skipper Reported from Sussex, Warren, Morris, and Hunterdon counties, but in relatively low numbers. First seen 5/21 (4) Mountainside Park, MOR [NABA]. Highest count just (5) 6/1 Crater Lake Road, SUS [MB, JB]. Last sighting 6/19 (1) Crater Lake Road [NABA].

Peck's Skipper Very well reported. First encountered 5/17 (1) Culver's Lake, SUS [FW]. Spring brood top counts: (50+) 6/6 Schooley's Mt. Park, MOR [VC]; (20) 6/12 Troy Meadows, MOR [JS, CW, PW]. First brood found at least through 7/4 (1) Roxbury Twp., MOR [NABA]. Summer brood discovered 7/16 at both Hobler Park, SOM (3) [R4JC] and Karen Nash Butterfly Garden, WAR (1) [NABA]. Excellent second brood maxima: (125) 7/31 Schooley's Mt. Park [CW, JS, SL]; (100+) 8/13 Big Brook Park, MON [NABA]; (51) 7/24 Troy Meadows [PW, CW]. Last sighting 10/5 (1) Somerset, SOM [PW].

Tawny-edged Skipper Well reported across northern NJ. Found first 5/21 (1) Kittatinny Valley SP, SUS [TH, et al.]. Spring-brood top count an excellent (35) 6/4 High Point SP, SUS [NABA]. Last of first brood 7/4 (2) Roxbury Twp., MOR [NABA]. Second brood initially seen 7/16 (1) Hobler Park, SOM [R4JC]. Highest numbers: (a superb 100+) 8/13 Big Brook Park, MON [NABA]; (30) 7/3 Schooley's Mt. Park, MOR [CW, JS, SL]; (25) 7/30 Kittatinny

Valley SP [TH]. Last noted 9/28 (1) Thompson Park, MON [VC].

Crossline Skipper First brood widely reported; the second confined to central NJ. Initial sighting 6/4 (1) Bridgewater Twp., SOM [JS]. Peak numbers excellent: (25) 7/4 Roxbury Twp., MOR [NABA]; (17) 6/29 Schooley's Mt. Park, MOR [VC]. First brood last noted 8/21 (1) Walpack Twp., SUS [WW]. Second brood found between 8/27 (5, the high tally) Assunpink WMA, MON [CW, PW, JS] and 9/11 (2) Big Brook Park, MON [JS, PW, CW].

Long Dash Six reports received from five sites in Sussex and Warren counties. Initially observed 6/2 (1) at both Whittingham WMA, SUS [TH] and Kittatinny Valley SP, SUS [TH]. High count just (4) 6/5 White Lake, WAR [TM]. Last found 6/23 (1) AT lands, Vernon, SUS [AB].

Northern Broken-Dash Widely reported, but numbers not especially high. First discovered 6/21 (2) Willowood Arboretum, MOR [JB]. Maximum counts: (80) 7/3 Pole Farm, MER [MC4JC]; (70) 7/2 Washington Valley, MOR [GS4JC]; (66) 7/2 Troy Meadows, MOR [GS4JC]. Final sighting 8/6 (1) Montague Twp., SUS [NABA].

Little Glassywing Widespread and numerous. First encountered 6/16 (1) Walkkill River NWR, SUS [TH]. Peak numbers: (325) 7/2 Washington Valley, MOR [GS4JC]; (250) 7/2 Harding Twp., MOR [GS4JC]; (85) 7/9 Whittingham WMA, SUS [S4JC]. Observed last 7/25 (1) Kittatinny Valley SP, SUS [TH].

Sachem Modest numbers noted from the Piedmont and Coastal Plain areas of our region. Discovered 7/7 (1) Somerset, SOM [PW], but very irregularly reported until September. Top counts: (29) 9/11 Big Brook Park, MON [CW, PW, JS]; (23) 9/8 DeKorte Park, BER [VC]; (18) 9/18 Deep Cut Gardens, MON [JS]. Last observed 11/1 (1) Somerset, SOM [PW], a new late date.

Arogos Skipper One report: 7/4 (6) Kenvil, MOR [NABA]. Known sites apparently were not well-visited this year.

Delaware Skipper Although seen widely and in good numbers, it seemed to be a short emergence. Observed between 6/27 (1) Fredon Twp., SUS [SW, WW] and 7/24 (1) Troy Meadows,

MOR [PW, CW]. Peak counts: (a staggering 200+) 6/29 Schooley's Mt. Park, MOR [VC]; (a merely stunning 70+) 7/9 Walpack Twp., SUS [S4JC].

Mulberry Wing Found in Sussex, Morris, and Middlesex counties, but not particularly well reported. Initial sighting 7/2 (2) Troy Meadows, MOR [GS4JC]. Top counts on low side; the only one to reach double figures was (13) 7/16 Helmetta, MID [R4JC]. Final observation 8/2 (1) High Point SP, SUS [TS].

Hobomok Skipper Widely reported, but not especially numerous this year. First encountered 5/19 at both Stillwater, SUS (1) [JB, MB] and White Lake, WAR (2) [MB, JB]. Highest numbers: (25) 6/1 Union Twp., HUN [TM]; (25) 6/4 High Point SP, SUS [NABA]; (15) 6/4 Hilltop Reservation, ESS [KD]. Last noted 7/9 Whittingham WMA, SUS [S4JC].

Zabulon Skipper Widely distributed. First observed 5/15 (1) Somerset, SOM [SL]. Sole double-digit count from first brood (13) 6/4 Bridgewater Twp., SOM [JS]. Last of spring brood found 7/9 (1) White Lake, WAR [TM]. New brood discovered 7/21 (1) Rifle Camp Park, PAS [VC]. Highest second-brood numbers: (20+) 8/18 Willowood Arboretum, MOR [TH]; (18) 8/15 Thompson Park, MON [VC]; (15) 8/13 Big Brook Park, MON [NABA]. Last encountered 9/28 (2) Thompson Park [VC].

Broad-winged Skipper Widely reported across the region, but largest colonies remain in the Hackensack Meadowlands. Discovered 7/1 (1) Sawmill Creek WMA, BER [KW]. Top counts (150+) 8/2 & 8/10 Carlstadt, BER [KW]. None recorded after 9/8 (2) DeKorte Park, BER [VC].

Dion Skipper An excellent ten reports from nine sites in Monmouth, Middlesex, Morris, Warren, and Sussex counties. In the north, first seen 7/2 (2) Great Swamp NWR, MOR [GS4JC]. Peak counts: (8) 7/4 Whittingham WMA, SUS [TM]; (3) 7/4 TNC Glover's Pond Preserve, WAR [TM]. Northern NJ Dions last seen in several places on the 7/9 S4JC. In central NJ single individuals were noted as follows: 7/16 Davidson's Mill Pond Park, MID [R4JC]; 7/16 Pigeon Swamp SP, MID [R4JC]; 7/23 Mounts Mills, MID [NABA]; 7/23 Assunpink WMA, MON [NABA]. It is still unclear whether central NJ's Dion Skippers are the same taxonomic entity as those in

the north. None of the four central NJ butterflies were heavily worn (in fact, the 7/23 individuals were mint fresh) at a time when Sussex County's Dions would likely be tattered, if still flying at all.

Black Dash Not very well reported. Seen only in Sussex, Warren, and Morris counties and even there for just a rather brief period. Initially encountered 7/2 in a number of places on the GS4JC, including Washington Valley, MOR where the top count of (24) was recorded. Other high numbers were: (18) 7/4 Whittingham WMA, SUS [TM]; (18) 7/9 Andover Twp., SUS [S4JC]; (18) 7/9 Strader's Pond Preserve, SUS [S4JC]. Last reported 7/31 (3) Sparta Mt. WMA, SUS [TH. et al.].

Dun Skipper Widespread, but not especially abundant this year. Initial sighting 6/4 (1) Montclair, ESS [AB]. Highest counts: (58) 7/2 Great Swamp NWR, MOR [GS4JC]; (51) 7/2 Washington Valley, MOR [GS4JC]; (45) 7/24 Wildcat Ridge WMA, MOR [CW, PW]. Second brood much less numerous and mostly found on the Piedmont and Coastal Plain. Best counts: (8) 8/27 Assunpink WMA, MON [JS, PW, CW] and (7) 8/27 Willowood Arboretum, MOR [TH]. Last reported 9/12 (4) Willowood Arboretum, [TH].

Dusted Skipper Found at seven sites in Monmouth, Morris, and Sussex counties. Initial sighting 5/18 (1-3) Assunpink WMA, MON [TM, TF, KWa]. The only other count exceeding 1 or 2 was (5) 5/21 Mountainside Park, MOR [NABA]. Last seen 6/13 (1) Flatbrookville, SUS [TH].

Monk Skipper A first for our region and, no doubt, the whole state! Photographed 9/18 (1) at Deep Cut Gardens, MON [JS]. The species is a mid-twentieth century introduction to southern Florida from the West Indies. A palm feeder, it is not a likely candidate for northward vagrancy, though this certainly cannot be ruled out. Perhaps the most likely scenario would involve a larval stowaway on tropical plantings imported into the state.

Pepper and Salt Skipper A major surprise was the discovery of a single individual in Union Twp., HUN on 5/31 [TM]. Follow-up visits on 6/1 (7) [TM] and 6/5 (4) [JS, PW, CW] happily confirmed the presence of a seemingly well-established colony. Just two reports came from the the well-known High Point

SP, SUS site: 6/4 (1) [NABA] and 6/9 (4) [TH]. No double-digit counts have been reported from this colony since 2002.

Common Roadside-Skipper An excellent find, and the first in the region since 2001, were (3) 5/30 Raccoon Ridge, WAR [JS]. This site, along the AT on Kittatinny Ridge, is fairly near the reliable Yard's Creek population that is no longer accessible. Another visit to 'Coon on 6/5 produced (2) individuals [TM].

Ocola Skipper Eight reports of single individuals from seven sites in Monmouth, Somerset, Morris, and Sussex counties. First found 8/21 at both Fredon Twp., SUS [SW, WW] and Schooley's Mt. Park, MOR [JS]. Last noted 10/15 Fredon Twp. [WW, SW].

Contributors: The following people contributed sightings for this report. Those with initials in parentheses are cited in the text.

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Other citations:

NABA North Jersey Butterfly Club field trip (NABA), NABA SE Pennsylvania Butterfly Club field trip (SEP), Great Swamp Fourth of July Count (GS4JC), Mercer County Fourth of July Count (MC4JC), Raritan Fourth of July Count (R4JC), Sandy Hook Fourth of July

Count (SH4JC), Springdale Fourth of July Count (S4JC), Walkkill River NWR Fourth of July Count (WR4JC)

Abbreviations: All locations mentioned include the first 3 letters of the county in capital letters unless that location has already been cited for that species. Other abbreviations: AT = Appalachian Trail, Mt. = Mountain, NWR = National Wildlife Refuge, PVT = Paulinskill Valley Trail, SF = State Forest, SP = State Park, TNC = The Nature Conservancy, WMA = Wildlife Management Area

Agenda (continued from p. 4)

(3) Butterflies need to get better at identifying caterpillar food plants. This is a great way to discover locations where certain species may be found, and effectively limits the number of sites that contain potential habitat. For example, Sharon and I have found Harris' Checkerspot, Arogos Skipper, Leonard's Skipper, and Common Roadside-Skipper, to name but a few, just based on our noting the locations of large stands of the caterpillar food plant in suitable-looking habitat. To this end, it might be a good idea to hold occasional botanical workshops, or at least incorporate more plant identification into our field trips.

(4) A bewildering amount of open space is being protected every year in NJ—and much of it is public. It occurs to me that the club could provide a valuable service to the various State agencies and private organizations involved in land acquisition by conducting species surveys, evaluating habitats, and recommending management techniques to protect or enhance habitat for butterflies. Very little of this is currently being done due to a lack of funds and expertise. We would have to contact the various organizations to make them aware of NABA's expertise and the value of such work. This would not only assist in land acquisition and habitat management, but also get members out into areas not previously visited (always a good idea) and perhaps result in the discovery of new populations of rare species. This will probably require a liaison between the club and the various agencies and organizations. Grants may be available to pay members small stipends.

(5) With just a glance around the room at any one of our meetings, one can tell that the club, like almost all nature clubs, needs young blood. This is due to the growing disconnect between people and nature, and the increasingly busy schedules of young people today. I'm not sure how to effectively compete against video games for the interest of today's youth, or even if kids today have any discretionary time or energy left what with sports practice, cell-phone time, and mega-homework. But the club has many retired teachers who may be able to offer suggestions on how to attract students to our meetings, and how to kindle an interest in nature in general. A few ideas would be to persuade schools to establish environmental clubs like the excellent one at Kittatinny Regional High School in Sussex County, and to offer class credit for attending meetings or assisting in club projects. We should also explore ways to promote butterfly gardening programs (such as the one in Warren County's Washington Borough) to other school districts.

(6) The club should do more to encourage people to plant butterfly gardens. The NJ Audubon Society has been very successful in persuading homeowners in Cape May Point and Cape May City to plant Butterfly Bushes and other butterfly-attracting plants. Perhaps the same could be done on a broader scale elsewhere. Sharon and I suggested some time ago that the club devote one meeting annually to the nuts and bolts of planting a butterfly garden, although this admittedly is preaching to the choir. More effective ways of reaching a larger audience would be for the club to get articles published in local and regional newspapers, and to distribute posters and handouts on butterfly plants to nurseries. Planting gardens at schools may be especially effective at reaching young people, one of whom may grow up to be another Jeff Glassberg.

Well, these are a few ideas. (I'm particularly fond of the butterfly calendar caper.) Don't you think it's time the club went beyond meetings, field trips and cookies? We certainly have the talent and expertise to do a great many meaningful things—so let's get going! (Coach leaves the room, music-theme from "Hoosiers"—swells, picture fades to black, credits roll—and now a word about next month's show).

4th of July Butterfly Counts - 2005

	LAKEHURST (6/18)	SANDY HOOK (6/29)	GREAT SWAMP (7/2)	MERCER CO. (7/3)	SPRINGDALE (7/9)	WALLKILL NWR (7/10)	RARITAN (7/16)
Black Swallowtail		1	1	27	15	23	39
Eastern Tiger Swallowtail	2	1	10	8	22	6	34
Spicebush Swallowtail	18		2	2	25	7	9
Cabbage White	42	59	1208	402	341	149	703
Clouded Sulphur	7	8	120	91	131	262	22
Orange Sulphur	23	14	250	190	57	82	16
Harvester			6	1			
American Copper	23	203	3	3	41	1	
Bog Copper	95						
Coral Hairstreak	1	22	1	4	2		
Acadian Hairstreak					1		
Edwards' Hairstreak					6		
Banded Hairstreak	11		387	65	219	126	1
Hickory Hairstreak			7		24	25	
Striped Hairstreak	9	1	10	5	6	4	
Oak Hairstreak							1
Juniper Hairstreak							1
Gray Hairstreak	3		5	3			1
Red-banded Hairstreak	3						
Eastern Tailed-Blue	60	5	184	149	54	28	71
"Summer" Azure	23	12	14	11	5		2
Northern Metalmark					133		
American Snout		1					
Variegated Fritillary	1						
Great Spangled Fritillary		1	210	73	259	87	30
Aphrodite Fritillary					3		
Silver-bordered Fritillary							1
Meadow Fritillary					4		
Pearl Crescent		1	777	468	322	446	122
Baltimore Checkerspot			1		33	9	
Question Mark		1	2		2		2
Eastern Comma		1	4	1	17	30	
Compton Tortoiseshell					6		
Mourning Cloak			6	3	23	2	
Milbert's Tortoiseshell					12	4	
American Lady	28	5	7	4	18	4	4
Painted Lady	7	1	9	2	6	10	9
Red Admiral	2	3	12	3	14	40	8
"Red-spotted Purple"	14	2	1		1	3	
Viceroy				1	2	10	3
Hackberry Emperor	1	4			3		
Tawny Emperor					20	1	
Northern Pearly-Eye			13		44	1	
Appalachian Brown	17		72	2	78	4	1
Little Wood-Satyr	3	9	289	61	32	5	12
Common Wood-Nymph			340	179	397	368	34
Monarch	2		13	10	18	28	30
Silver-spotted Skipper	19	2	86	38	97	12	11
Hoary Edge					5		
Southern Cloudywing	5			1	1		
Northern Cloudywing	1				1		
Horace's Duskywing			4	2	2		3
Wild Indigo Duskywing			14	23	4	1	71
Common Checkered-Skipper				1	2		
Common Sootywing				1		4	4
Swarthy Skipper	43	1		2			
Least Skipper	2		221	38	43	16	5
European Skipper	4		51	10	11	4	
Fiery Skipper					2		
Dotted Skipper	16						
Peck's Skipper	7		24	5			4
Tawny-edged Skipper	11		4	5			1
Crossline Skipper	13		9		12	2	
Northern Broken-Dash	5	5	199	122	56	9	10
Little Glassywing	10		835	252	445	26	3
Sachem							3
Delaware Skipper			54	16	208	18	2
Mulberry Wing			2		22	1	13
Hobomok Skipper			11		1		
Zabulon Skipper	3		3		1		
Broad-winged Skipper			1		2	4	2
Dion Skipper			2		4		2
Black Dash			46		73	11	9
Two-spotted Skipper	2						
Dun Skipper	3		175	22	208	29	7
TOTAL SPECIES	38	24	48	41	59	41	40
TOTAL INDIVIDUALS	539	363	5705	2306	3596	1902	1306