

Hoffman Center, Nassau Co., NY

Annotated List of Butterflies

These notes are compiled from field observations 7/15/01 through 10/9/03. During this time, I have identified a total of 49 butterfly species and 1 additional form ("Summer" Azure) at Hoffman. My field trips to the Center are ongoing, and this report will be amended as new sightings continue to accumulate. Comments regarding abundance refer specifically to the species' abundances on the Center grounds, which is different in some cases than the species' occurrences in other areas of Long Island and the northeastern U.S. Because I also spend a lot of time counting butterflies at Muttontown Preserve, which is only a few miles away from Hoffman as the butterfly flies, some of my impressions of abundance are based on relative comparisons to that site. Species marked with an asterisk (*) are, in my opinion, either noteworthy sightings and/or are special butterflies at the Center. All comments regarding abundance, occurrence, *etc.* are purely my own observations, and are bound to change and be revised, by myself and others, as more field work and sightings accumulate over time. Comments about plant and habitat management are purely my own speculations. Host plant info, *i.e.* info on those plants on which the caterpillar stage feeds, is taken from the references listed at the end. Any errors in this report are mine alone.

Dr. Bill

M.S., Ecology and Evolutionary Biology, Cornell University

D.V.M., Cornell University

Butterfly List

Black Swallowtail, *Papilio polyxenes*. Uncommon. Its host plants include

Queen-Anne's-Lace, *Daucus carota*, which is common at the Center.

Eastern Tiger Swallowtail, *Papilio glaucus*. Common; hosts include Wild Cherry,

Prunus spp., common at the Center, and Tulip Tree, *Liriodendron tulipifera*.

Spicebush Swallowtail, *Papilio troilus*. Common. One of its main host plants,

Sassafras, *Sassafras albidum*, is a common tree at the Center.

Cabbage White, *Pieris rapae*. Abundant; crucifers are the hosts. One of only two

introduced and established butterflies in the Northeast. Curiously, I have never seen the other species, European Skipper, at Hoffman, despite the fact that it is abundant at nearby Muttontown Preserve during its midsummer flight period.

Clouded Sulphur, *Colias philodice*. Uncommon, despite its hosts: White Clover,

Trifolium repens, common at the center, and other legumes. This species and the next seemed to be more abundant in 2001 and 2002; perhaps the overwhelming abundance of Mugwort, *Artemisia*, in 2003 suppressed its numbers somehow?

Still, Orange Sulphurs remain fairly common at Muttontown in 2003...

Orange Sulphur, *Colias eurythema*. Uncommon to occasionally common. Legumes are the hosts. Rarely seen in 2003.

*Little Yellow, *Eurema lisa*. Rare southern stray, unusual for this site, though an occasional immigrant from the south, where it is common. Seen once, in

September 2003. Perhaps the presence of a good amount of one of its host plants, *Cassia fasciculata*, encouraged this individual to remain in the area, since it was seen amongst these plants near the pond.

*American Copper, *Lycaena phlaeas*. Fairly common at the Center—this is one of the Center's butterflies which seem to me to be easier to find here than in many other places on Long Island's North Shore. The dry, sandy open areas around the pond are good sites for this butterfly. Docks, *Rumex*, are the host plants.

Coral Hairstreak *Satyrrium titus*. Uncommon to rare; seen on the sunny afternoon slope between the north side of the old driveway through the pines and Rt. 25A (the old driving range). Wild Cherry, *Prunus serotina*, is a host plant, along with others.

Banded Hairstreak, *Satyrrium calanus*. Uncommon to rare, but probably occurs more commonly than it is actually seen. Oaks, *Quercus*, and Hickories, *Carya*, are hosts.

Striped Hairstreak, *Satyrrium liparops*. Uncommon to rare. Wild Cherry, *Prunus serotina*, is a host.

Gray Hairstreak, *Strymon melinus*. Uncommon to fairly common. Seen on many if not most visits in mid- to late summer. Many host plants. Some individuals seen at Hoffman may have flown in as adults from elsewhere?

*Red-banded Hairstreak, *Calycopis cecrops*. Uncommon but fairly regular. Another "specialty" of Hoffman Center, this species was seen on 6 of 12 visits during the summer and fall of 2003. It might be easier to find here than at many other places in Nassau County? Individual rest along the many trails and whirl outward from trail edges when disturbed by people walking past. Host "plants" are decaying leaves, especially of Sumac, *Rhus*, species.

Eastern Tailed-Blue, *Everes comyntas*. Common to abundant; legumes are hosts.

Spring Azure, *Celastrina ladon*. Probably more than one species involved; the taxonomists are still sorting this out. This early spring form is common at the Center. Many host plants.

'Summer' Spring Azure, *Celastrina ladon neglecta*. Common. Both azures are more likely to be seen along the wooded trails than in the open fields.

Great Spangled Fritillary, *Speyeria cybele*. Uncommon to rare. Seen only once. Much less common here than at nearby Muttontown Preserve, but generally uncommon to rare on Long Island. Violets, *Viola*, are the host plant.

Pearl Crescent, *Phyciodes tharos*. Common to abundant. *Aster* spp. are hosts.

Question Mark, *Polygonia interrogationis*. Uncommon; maybe numbers vary from year to year? Many hosts, including nettles, *Urtica*; elms, *Ulmus*; and Hackberry, *Celtis*.

Eastern Comma, *Polygonia comma*. Uncommon to rare; host plants include elms and nettles, like Question Mark. May prefer deeper, older woods than those present at the Center?

Mourning Cloak, *Nymphalis antiopa*. Uncommon. Willows, *Salix*, are one of many

hosts. Willows could easily be planted near the ponds, perhaps after removing some of the ubiquitous (invasive?) Russian-Olive, *Elaeagnus angustifolia*. However, the pond contains a liner, and willow roots near the pond edge would eventually be damaging to the pond itself. Perhaps willows could be encouraged alongside the ephemeral ponds east and south of the main pond.

American Lady, *Vanessa virginiensis*. Uncommon but regular. With this and the next 3 species as well, numbers vary from year to year, depending on immigrants from the south, since our winters are generally too cold for them to overwinter here. Pearly Everlasting, *Anaphalis margaritacea*, and other composites are the host plants for the American Lady.

Painted Lady, *Vanessa cardui*. Uncommon. Thistles, *Cirsium*, are host plants for this Lady, and all butterflies also swarm over thistle flowers for nectar. Even though they can be obnoxious weeds, thistles are wonderful butterfly plants.

Red Admiral, *Vanessa atalanta*. Uncommon, to occasionally common. Nettles, *Urtica*, are a usual host.

Common Buckeye, *Junonia coenia*. Several hosts, which include two common plants at the Center: Toadflax or Butter-and-Eggs, *Linaria*, and Plantain, *Plantago*. 2002 and 2003 have seen good numbers of this butterfly at the Center; in 2001 there were none.

Red-spotted Purple, *Limenitis arthemis astyanax*. Uncommon but fairly regular. This gorgeous butterfly is always a welcome surprise and can show up anywhere along the trails at Hoffman, even sunning in dry parking lots, etc. Cherries, *Prunus*, are one of many hosts.

*Viceroy, *Limenitis archippus*. Rare. Seen once, along the edge of the big pond. Rare on Long Island. Shrubby willow species, *Salix*, are the usual hosts.

Little Wood-Satyr, *Megisto cymela*. Common. Grasses are the hosts.

Common Wood-Nymph, *Cercyonis pegala*. Common to abundant. Grasses are hosts.

Monarch, *Danaus plexippus*. Uncommon to common. Numbers vary depending on migration. A large caterpillar was photographed on Common Milkweed, *Asclepias syriaca*, on 8/8/03.

Silver-spotted Skipper, *Epargyreus clarus*. Common to abundant. Black Locust, *Robinia pseudoacacia*, is the host plant—common at the Center.

Northern Cloudywing, *Thorybes pylades*. Uncommon at the Center. Legumes are the hosts.

Juvenal's Duskywing, *Erynnis juvenalis*. Fairly common in spring on Center trails. Oaks, *Quercus* spp., are the host plants. This butterfly looks very similar to another duskywing, Horace's; a duskywing that might have been a male Horace's was seen but not positively identified on 9/21/03 along the pond edge.

Wild-Indigo Duskywing, *Erynnis baptisiae*. Uncommon to rare at the Center. The most common host plant is now the alien Crown Vetch, *Coronilla varia*.

*Common Checkered-Skipper, *Pyrgus communis*. Rare on Long Island. Seen once at

the eastern end of the large field near the big pond, where there is a good amount of one of its host plants, the alien Musk Mallow, *Malva moschata*.

Common Sootywing, *Pholisora catullus*. Uncommon to rare, this species can turn up anywhere at the Center, often in barren waste places, probably because the weedy Lamb's Quarters, *Chenopodium*, is one of its host plants.

Least Skipper, *Ancyloxypha numitor*. Uncommon, seen near ponds. Likes wet edges. Like all of the following skippers, grasses are the host plants.

Peck's Skipper, *Polites peckius*. Common to abundant. This and the following are two of the three most common grass skippers during their flight periods. These two, Peck's and Tawny-edged, have two broods. They are seen in June, then disappear in July, then become especially abundant in August and September. Grasses are the host for Peck's Skipper.

Tawny-edged Skipper, *Polites themistocles*. Common; grasses are hosts.

Crossline Skipper, *Polites origenes*. Uncommon. Host plant is Purple Top, *Tridens flavens*, and other grasses.

Northern Broken-Dash, *Wallengrenia egeremet*. Common to abundant. The most common grass skipper in July, which is between the two broods of Peck's and Tawny-edged Skippers. Panic Grass, *Panicum*, is a host plant.

Little Glassywing, *Pompeius verna*. Uncommon. Another butterfly that uses Purple Top, *Tridens*, as a host.

Sachem, *Atalopedes campestris*. Rare to abundant. Mild winters allowed the population of this southern butterfly to climb to record levels by the end of summer in 2002, but the winter of 2002/2003 killed all of them. As of mid-August 2003, none had been seen at the Center, and only one had been reported for 2003 on all of Long Island—seen nearby, at Muttontown Preserve. The only Sachem seen at Hoffman in 2003 was a male on 9/11.

Zabulon Skipper, *Poanes zabulon*. Common. Males stake out a sunny spot along a woodland trail and dart out at passersby. Grasses are hosts.

*Broad-winged Skipper, *Poanes viator*. Rare for sites away from *Phragmites* reeds, their host plants. The one seen 8/22/03 was probably a stray.

Dun Skipper, *Euphyes vestris*. Uncommon. Sedges, *Carex*, are the hosts.

Plants Associated with the Butterflies

In addition to the plant species mentioned above, many other plants are important to butterflies. The ongoing management of the Center to optimize grassland habitats, which are rare in Nassau County, is ideal for butterflies. Aggressive mowing of even the smaller open patches within the shrubby second-growth areas, to help keep them open, would also benefit butterflies. Some of these areas which remain partly open now but are rapidly filling with shrubs include the long strip of sloped ground between the old driveway and Rt. 25A (the old driving range), and many of the small open patches along the long loop trail in the northeast quadrant of the Center.

Controlling of the invasive alien Mugwort, *Artemisia vulgaris*, seems to be a priority at Hoffman, and rightly so—it is “taking over” the western half of the large fields, as well as many of the smaller openings scattered throughout the

Center. Once established, Mugwort seems to become a sterile monoculture, excluding other plant species, and useless for butterflies.

Another form of habitat management, in addition to mowing or weeding, is the deliberate encouragement and/or cultivation of certain plant species. This can benefit butterflies greatly. Beneficial butterfly plants tend to fall into two overlapping categories. First are those plants which are host plants for butterflies, providing the food upon which their caterpillars live. Many of these species are mentioned above in the species notes. Second are those which are good to excellent nectar sources for the adults. Increasing the abundance of both groups will make the butterfly numbers and diversity at Hoffman even greater.

A few more host-plant species which occur or could occur at Hoffman Center, with no particular order or emphasis, follow:

Bluestem Grasses (*Andropogon*): This particular grass, which has been deliberately planted at the east end of the large field at Hoffman adjacent to the big pond, is the host plant for a number of skippers, such as Swarthy and Cobweb. These skippers have colonies elsewhere on Long Island and could be attracted to the Center by this grass. Other grasses are also hosts for various skippers. In general, any management strategy that maximized grassy fields with wildflowers and minimized invasive aliens such as Mugwort and also minimized invasive shrubs and trees would encourage increased butterfly numbers and diversity.

Partridge-Pea (*Cassia fasciculata*) is important as a host to the sulphurs and yellows.

There is much growing in the east end of the field near the pond; perhaps it was planted there, either by accident or deliberately, when the Bluestem was planted?

Milkweeds (*Asclepias*). Orange Milkweed (*A. tuberosa*) is a wonderful nectar source in midsummer and should be encouraged. Swamp Milkweed (*A. incarnata*) and Common Milkweed (*A. syriaca*) are also outstanding nectar sources. Common Milkweed already grows in a few stands around the Center. Orange Milkweed was planted around the pond, I believe, but seems to have mostly died out there. Perhaps it would do better with more moisture? (i.e. moister soil) Milkweeds are the host plants for Monarchs; I photographed a large Monarch caterpillar on Common Milkweed near the Pond on 8/8/03.

Hackberry (*Celtis occidentalis*). This is a critically important tree for three Long Island butterflies, and important for a fourth. Three species of butterflies are Hackberry specialists, meaning that their caterpillars feed only on Hackberry, and the adult butterflies are only seen on or near Hackberry trees. These three butterflies are the Hackberry Emperor, *Asterocampa celtis*; the Tawny Emperor, *A. clyton*, and the American Snout, *Libytheana carinenta*. None of these three species has been seen at Hoffman, because there are no Hackberry trees here. But, all three species occur in nearby areas with Hackberry trees, such as at Jamaica Bay and on Staten Island. Historically, there has been a small colony of Tawny Emperors near the kame at nearby Muttontown Preserve, centered on a

small group, only a handful of Hackberry trees, which grows there. I am quite confident that populations of one or more of these species would develop at the Center if Hackberries were planted here. In addition, a fourth species of butterfly, the Question Mark, *Polygona interrogationis*, also favors Hackberry as a host plant, though it uses others, and its numbers would increase if Hackberries were planted.

Hackberry trees would grow quite well in the sandy soil at the Center, just as they do at Jamaica Bay Wildlife Refuge. At Jamaica Bay, they are planted in the parking medians, and they do fine in the hot, dry conditions. A grouping of a half-dozen or more of these trees, or better yet, several groups scattered throughout the Center, would make a lot of butterflies, and this butterfly watcher, very happy. Planting Hackberry trees is one butterfly management strategy that is relatively straightforward and would make a big difference. I believe they prefer limey (alkaline) soil, so some lime added to their roots annually would probably benefit them.

Wild Indigo (*Baptisia tinctoria*). This plant is the host plant for Frosted Elfin, *Callophrys irus*, and for Wild Indigo Duskywing, *Erynnis baptisiae*. Frosted Elfin currently survives in only one tiny area in Nassau County, a small remnant of the once vast Hempstead Plains, preserved near the Nassau Coliseum. I do not know whether this plant could be planted and encouraged successfully at Hoffman, or if so, whether its presence would result in either of these two butterflies appearing here unless they were deliberately introduced. Wild Indigo Duskywing has been seen at Hoffman on one occasion (7/21/02).

The following are a few plants that serve as excellent nectar sources. Most are native species, but the first on the list is not:

Butterfly Bush (*Buddleia davidii*). This is not native, but it is such an important shrub for butterflies that I have to put it first on the list here. If it were up to me, I would plant clumps of this bush around every building and parking area, the more the better. From midsummer through fall, the flowers attract hordes of butterflies. During their fall migration, Monarchs will sometimes be found 10 or 20 or more at a time on a single bush! Very popular with the public as well as with butterflies. The shrubs bloom for a longer period and with better results if they are dead-headed periodically during the summer, i.e., if the faded, dead flower heads are cut off. This can be somewhat labor-intensive if there are a lot of shrubs scattered over a large area—but, it doesn't have to be done at all, and the shrubs will still attract a large number of butterflies. The shrubs are winter-hardy on Long Island, and can either be pruned to maintain a smaller size, or, better for butterflies, left to form tall, 10-foot shrubs.

Red Clover, *Trifolium pratense*, is another non-native, but probably one of the most important nectar sources for butterflies at the Center. It blooms throughout the

summer and provides food for all flower-loving butterflies. It is common at Hoffman and, in my opinion, should be encouraged. Being a legume, it also improves the soil.

Dogbanes, *Apocynum*, are wonderful native nectar sources for butterflies. Dogbane grows only sparingly at Hoffman. If it were encouraged somehow, or planted more widely, butterfly numbers and butterfly watching would be greatly improved. Dogbane blooms in midsummer, mostly after the larger Common Milkweed has finished. Its tiny fragrant flowers provide a rich nectar source that butterflies of all species seem to love. It is especially good for attracting the various hairstreaks, since it blooms during their annual mid-summer flight period.

Dogbane grows in large stands at Muttontown Preserve, and, in my opinion, its presence there in such quantity, compared to Hoffman, is one of the reasons why butterfly numbers and diversity seem to be greater at Muttontown (for the time being!) than they are at Hoffman.

Joe-Pye-Weeds and Bonesets (*Eupatorium*), and Ironweed (*Vernonia*). There are a number of species of these native plants, all of which are good nectar sources for butterflies in mid- to late summer and fall. Some already grow at the Center in small patches; more would be better!

Mountain-Mints (*Pycnanthemum*). These native mints are great in summer for butterflies as well as other insects. The hairstreaks especially seem to love them. I have never seen this growing at Hoffman, but I'm sure it could be planted here.

Buttonbush, *Cephalanthus occidentalis*. This is a beautiful native shrub that likes to grow with its feet wet, but will also grow in a damp field area. It has white ball-shaped flowers in mid- to late summer that butterflies really love. It could be planted, for example, around the edges of the large pond, or along the smaller ponds/wet depressions just east of the main pond.

Regarding these smaller ponds—2003 was a very wet year, especially in the spring. Consequently, the smaller pond retained water throughout the summer, and it became very attractive to dragonflies and damselflies. A growing number of nature center visitors are becoming increasingly interested in dragonflies watching, along with butterfly watching. I have seen some wonderful dragonflies around the ponds, especially the smaller, marshy pond to the east of the main pond, and especially in 2003. A few of these species are listed here; I'm sure any dragonfly and damselfly observer who spent some time with these insects at Hoffman could add greatly to this list

Green Darner, *Anax junius*

Mantled Baskettail, *Epithea semiaquea*

Widow Skimmer, *Libellula luctuosa*

Common Whitetail, *Libellula lydia*

Twelve-spotted Skimmer, *Libellula pulchella*

Meadowhawks, *Sympetrum* spp.

Eastern Amberwing, *Perithemis tenera*

Eastern Pondhawk, *Eythemis simplicicollis*

Black Saddlebags, *Tramea lacerata*

Carolina Saddlebags, *Tramea carolina*

Halloween Pennant, *Celithemis eponina*

Calico Pennant, *Celithemis fasciata*

Goldenrod, *Solidago* spp. These are abundant at the center, and provide excellent nectar in the late summer, along with the following:

Asters, *Aster* spp. Both Goldenrod and Asters will be choked out by Mugwort unless the Mugwort is controlled.

The above suggestions for plants and management strategies are just a small sampling of the possibilities. I would imagine that funding for initial plantings and, especially, funding and manpower and time for upkeep and maintenance would be the most significant obstacles to aggressively managing the Center to increase butterfly diversity. **If I had to pick just a few projects, I would say—plant a lot of Buddleias, and plant some Hackberry trees.** These, once established, should be relatively self-sufficient. Then, **I would also add, continue to be very aggressive with mowing**, etc., to maintain open, grassy field with a variety of wildflowers, suppressing Mugwort and other invasives like Russian-Olive and Multiflora Rose, *Rosa multiflora*.

Another excellent idea would be to include a Butterfly Garden as part of the permanent plan for the Nature Center. The grassy area behind the Nature Center building would be a good spot, as would the open areas west of the main house, on either side of the old driveway (one of these is now an overgrown maintenance area...) The only requirement is an open area with full sun.

It would be a lot of work, both to design and plant, and to maintain. The best source that I know of for information for such a project would be to contact Pat Sutton at the Cape May Bird Observatory in Goshen, NJ. Pat has overseen and developed a butterfly garden which has become the showpiece of the nature center there, and one of the premier butterfly gardens in the country. The activities there include butterfly walks, plant sales and classes, and many many other things. The garden has become a major tool for public education. It also attracts a lot of hummingbirds!

The following web sites provide information about the CMBO Butterfly Garden:

<http://www.njaudubon.org/Centers/CMBO/#goshen>

<http://www.njaudubon.org/Tools.Net/Sightings/Sightings.aspx?rt=NaturalHistory>

Pat Sutton can be contacted at:

Patricia Sutton

Program Director

New Jersey Audubon Society's

Cape May Bird Observatory

Center for Research & Education

600 Route 47 North

Cape May Court House, NJ 08210

609-861-0700, x-16 (phone) / 609-861-1651 (fax)

pat_sutton@njaudubon.org

Blue Heron Pond Park on Staten Island, NY, is a more local nature center which

has actively managed for butterflies. They have a large and beautiful butterfly garden which surrounds their parking lot and nature center building, and an active group of members and volunteers who maintain it. It is located at 48 Poillon Avenue, Staten Island, NY, 10312, phone number 718-967-3542.

The North American Butterfly Association (NABA) is an international organization which promotes butterfly watching; they could certainly help with information about managing habitat for butterflies. Their web site is at the following address: <http://www.naba.org>

The following web site provides info about NABA's International Butterfly Park (and Garden) in Texas: <http://www.naba.org/nababp/photoalbumBF.htm>

I am also appending some of NABA's brochure material on butterfly gardening to this report.

References (many more can be found on the websites or in these books):

Brock, J., and K. Kaufman. 2003. *Butterflies of North America*. Houghton Mifflin Company.

Glassberg, J. 1993. *Butterflies through Binoculars: A Field Guide to Butterflies in the Boston—New York—Washington Region*. Oxford University Press.

Glassberg, J. 1999. *Butterflies through Binoculars: The East*. Oxford University Press.

Peterson, R. T., and M. McKenny. 1968. *A Field Guide to the Wildflowers of Northeastern and North-central North America*. Houghton Mifflin Company.