



MASSACHUSETTS
BUTTERFLIES NO. 3

FEB. 1994

There are two ways to attract butterflies to your garden—plant nectar sources for adult butterflies and plant food sources for caterpillars. The most successful butterfly gardens will provide a variety of both. When you plan a butterfly garden, consider your surrounding natural habitats and your local butterfly population and gather information about the types of host plants and nectar sources these butterflies require. If you are as fortunate as the Audubon Shop in its location at Drumlin Farm with its woodland edges, ponds and sunny meadows, you may already be rich in larval plants and need only plant nectar sources to be certain to attract adult butterflies. If you already have a garden and wish only to add a few plants, there are two nectar sources that are proven outstanding butterfly attracters—Buddleia, a shrub commonly called "Butterfly Bush," and Verbena bonariensis, an annual in the Northeast, a perennial in warmer climes. At the Audubon Shop garden, the Verbena bloomed all summer, grew tall and spindly with purple flower heads, spread beautifully, and was the hands-down number one choice of Silver-spotted Skippers. Buddleia is long blooming as well, comes in a variety of species and colors, although mostly purple, and was the favorite of Eastern Tiger Swallowtail, Great Spangled Fritillary, Aphrodite Fritillary, and numbers of skippers.

Our 1993 garden consisted mostly of perennials with some annuals to fill in the gaps and provide color and nectar all summer. The overall color scheme was mostly purple, with some splashes of yellow Black-eyed Susans, lemon Marigolds, white Cosmos, and bright orange Butterfly Weed. Some plants didn't survive because of pests and diseases and our reluctance to fight them with pesticides or herbicides. As novice gardeners, we weren't prepared for the amount of work that is required to maintain the garden. It took us several weeks to set up a watering system that worked for us and for Drumlin Farm and their day camp, who share the water supply with us. In the end, we used a combination of sinker hoses, above-the-ground hoses, directionals that divide the water flow between two hoses, a large sprinkler, and a computerized timer that turned the water on and off! It was complicated but effective. We are thankful that we were able to find a hardworking, reliable and knowledgeable volunteer about half way through the summer who cheerfully did the weeding, deadheading, and pruning and who put the garden to bed for us in the fall. This year, we plan to keep a closer watch on pest control using some organic controls and to expand our use of annuals for color and variety.

Entrance to the garden and the Audubon Shop is free. We hope to see you there in 1994.

Audubon Shop Butterfly Garden First Sightings, 1993

May 2	Spring Azure	July 6	Little Glassywing
May 8	Mourning Cloak	July 7	Striped Hairstreak
May 12	Cabbage White	July 10	Eastern Comma
May 15	Eastern Tiger Swallowtail		Orange Sulphur
May 28	Juvenal's Duskywing		Little Wood Satyr
May 31	Pecks Skipper		Northern Broken Dash
June 9	Common Ringlet	July 16	Dun Skipper
June 10	Least Skipper	July 18	Common Wood Nymph
	American Lady		Black Swallowtail
	Red-spotted Purple	July 21	Monarch
	Pearl Crescent	Aug 11	Variegated Fritillary
June 18	European Skipper	Aug 12	Aphrodite Fritillary
June 20	Silver-spotted Skipper	Sep 2	Spicebush Swallowtail
July 1	Clouded Sulphur	Sep 25	Eastern Tailed Blue
	Great Spangled Fritillary		

1993 Season Summary

Early spring 1993 was characterized by cold, wet weather and April was pathetic for butterflies. By mid-May, however, the season was fairly well "caught up" and for the remainder of the summer, which was extraordinarily dry, species emerged on time or a bit early.

Cloudless Sulphurs and Little Yellows coastally, Silvery Blues near our northern boundary, and Dion Skippers in extreme southwest Massachusetts were the year's highlights. Monarch numbers recovered, and it was a very good year for Eastern Commas and the large fritillaries.

Most areas of the state are moderately to severely under-reported. Thanks to those who did send in reports for 1993. We hope for more input in 1994.

1993 Massachusetts Butterfly Sightings

The 1993 NABA "4th of July Butterfly Counts" are in general not included in the listing.

The following abbreviations are used in the listing:

BMBS	- M.A.S. Broad Meadow Brook Sanctuary, Worcester
v.o.	- various observers
**	- Early Flight Date
*	- Late Flight Date
Bold Face #'s	- represent unusually high counts for Massachusetts

Observers

K.Anderson(KA), C.Arbogast(CA), P.Bailey(PB), S.Bolton(SB), A.Cassie(AC), B.Cassie(BC), S.Cassie(SC), J.Center(JC), A.Cestari(ACe), M.Champagne(MC), K.Demay(KD), D.Diggins(DD), T.Dodd(TD), E.Dunbar(ED), T.Elliman(TE), M.Fairbrother(MF), R.Forster(RF), J.Glassberg(JG), T.Hanson(TH), J.Hathaway(JH), B.Healy(BH), R.Hildreth(RH), M.Kasprzyk(MK), D.Lahaise(DLh), D.Lang(DL), L.Lovell(LL), B.Malcolm(BM), A.McGinnis(AMc), A.Musante(AM), B.Nikula(BN), K.Parker(KP), S.Perkins(SP), W.Petersen(WP), E.Raymond(ER), R.Rinzler(RR), J.Ruas(JR), D.Savich/C.Tibbetts(DS/CT), J.Shahn(JS), D.Small(DS), J.Sones(JSo), R.Stymeist(RS), D.Wagner(DW), P.Weatherbee(PW)

Black Swallowtail				
MAY	9	North Truro	TH	1
	15	Concord	RF	1
	23	Montague	MF	1
	23	East Longmeadow	KP	1
JUN	30	Northbridge	RH	1
JUL	14, 29	Cape Ann	DS/CT	1, 1
	24	Worcester	TD	1
AUG	1	Concord	JG	4
	5	Stockbridge	PW	1
	13	Concord	RF	2
	16	Foxboro	BC	1
	21	Medford	BM	1
SEP	5	Cape Ann	DS/CT	1

Canadian Tiger Swallowtail				
Eastern Tiger Swallowtail				
MAY	1	E. Longmeadow	KP	1
	5	Walpole	BC	1
	9	Middleboro	KA	1
	15	Milford; Lincoln	RH; DD	3; 1
JUN	THRU-OUT	Cape Ann	DS/CT	
	12	Athol	DS	8
JUL	THRU-OUT	Cape Ann	DS/CT	(7/11) max 6
	1	Charlton	RH	5
	18	Newbury	RF	8
AUG	THRU-OUT	Cape Ann	DS/CT	(8/21) max 6
	7	Middlesex Fells	BM	9
	25	Sudbury	TD	1
	29	Foxboro	BC	1
SEP	5	Cape Ann	DS/CT	1

Spicebush Swallowtail				
MAY	15	Holliston	RH	1
		Wellesley; Foxboro	RF; BC	1; 1
	23	BMBS	TD	1
JUL	4-31	Cape Ann	DS/CT	(7/18) max 7
	26	Chilmark, M.V.	AMc	1
	29	Naushon Island	DL	2
	31	Easton	BC+ v.o.	6
AUG	THRU-OUT	Cape Ann	DS/CT	max 2
	10	Williamstown	PW	1
	14	Easton	BC+ v.o.	5
SEP	3-25	Cape Ann	DS/CT	(9/6,9/9) max 4
	6	W Boylston	TD	1
	6	Milford	RH	1
	24	Wellesley	RF	1

West Virginia White				
MAY	8	Deerfield	MF	
	15	Savoy	ED	20

Cabbage White

APR 5	Springfield	fide KP	1
17	Cambridge	RF	1
20	Milford	LL	1
MAY 12	Mansfield	BC	55
JUN 28	Wellesley	RF	200
30	Northbridge	RH	230
JUL 4	Uxbridge	RH	88
AUG THRU-OUT	Cape Ann	DS/CT	(8/12) max 29
SEP THRU-OUT	Cape Ann	DS/CT	(9/19) max 63
12	Westport	SB	>600
20	Eastham	BC, LL	118
OCT 1	Nantucket	SB	25
25	Wellesley	RF	1
29	Foxboro	SJC	1
NOV 14	Gloucester	DS/CT	1

Clouded Sulphur

APR 25	Uxbridge	RH	1
29	Middleboro	KA	1
MAY 8	Worcester; Concord	TD; RF	1; 1
JUN 7	Cape Ann	DS/CT	11
JUL 17	Easton	BC	11
AUG THRU-OUT	Cape Ann	DS/CT	(8/11) max 10
SEP THRU-OUT	Cape Ann	DS/CT	(9/19) max 15
20	Eastham	LL, BC	12
OCT 1	Easton	BC	18
19	Naushon Island	DL	11
24	Newburyport	RF	
25	Sudbury	TD	2
29	Cape Ann	DS/CT	2
NOV 16	Gloucester	DS/CT	2

Orange Sulphur

MAY 16	BMBS	TD	1
20	Montague	MF	1
25	Cape Ann	DS/CT	1
JUN 7	Cape Ann	DS/CT	13
1	Cape Ann; Charlton	DS/CT; RH	13; 16
JUL 31	Easton	LL	12
AUG THRU-OUT	Cape Ann	DS/CT	(8/11) max 15
SEP 20	Eastham	BC, LL	116
26	Naushon Island	DL	17
OCT 9	Carlisle	JC	3
19	Cape Ann	DS/CT	15
	Naushon Island	DL	9
NOV 3	Newton	RH	3
15	Gloucester	DS/CT	5
16	Gloucester	DS/CT	1

Cloudless Sulphur

AUG-OCT

(See Article)

Little Yellow

OCT 8	Gay Head, M.V.	RF	2
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American Copper				
MAY	15	Milford	RH	4
	17	Sudbury	TD	1
	22	Montague	MF	1
JUN	5	Milford; Mansfield	RH; BC	13; 123
JUL	26	Naushon Island	DL	10
SEP	12	Westport	SB	6
OCT	1	Nantucket	SB	1
	3	Quabbin Reservoir	JC	1
	5	Walpole	BC	1
Bronze Copper				
JUL	10	S. Berkshire County	DW	1
AUG	15	Greenfield	MF	1
SEP	20+23	Sudbury	TD	1
	24	Sudbury	RF	1f.
Bog Copper				
JUN	23-JUL 10	Sudbury	TD	(6/23) max 43
JUL	5	Sterling	TD	9
	17	Worcester	TD	1
Coral Hairstreak				
JUL	5	BMBS; Mansfield	TD; RH	1; 1
	7	Foxboro	LL	7
	17	Easton	BC	16
	20	Cape Ann	DS/CT	1
AUG	7	Foxboro	LL, BC	1
Acadian Hairstreak				
JUL	5	Worcester	TD	2
	25	BMBS	TD	1
Edwards' Hairstreak				
JUN	27	BMBS	TD	1
	29	Milford	RH	1
JUL	4	Cape Ann	DS/CT	1
	10	Wrentham	BC	3
	17	Worcester	TD	1
Banded Hairstreak				
JUN	26	Milford	RH	3
	29	Milford; Holliston	RH; RH	13; 3
JUL	1	Wellesley	RF	1
	6	Williamstown	PW	
	9	Foxboro	MC	10
	25	BMBS	TD	2
AUG	3	Brookline	BC	1
Striped Hairstreak				
JUN	27	BMBS	TD	1
	29	Milford	RH	19
JUL	7	Lincoln	DD	1
	10	Williamstown	PW	
	18, 22	Cape Ann	DS/CT	1, 1
	31	Easton	TD + v.o.	5
AUG	1	Holliston	RH	3
	13	Cape Ann	DS/CT	3

Southern Hairstreak				
JUL	5	BMBS	TD	1
	18	Cape Ann	DS/CT	1
Juniper Hairstreak				
MAY	7	Wayland	TD	1
	8	Foxboro	BC	1-2
	27	Foxboro	BC	4
AUG	7	Foxboro	BC, LL	3
Brown Elfin				
APR	24	Plymouth	TD + v.o.	2
	29	Cape Ann	DS/CT	1
	30	Montague	MF	
MAY	22	BMBS	TD	7
	29	Canton	BC	1
JUN	5	Mansfield	BC	
	7	Montague	MF	
Hoary Elfin				
APR	24	Plymouth	TD + v.o.	1
MAY	22	Plymouth	ACe +v.o.	1
Frosted Elfin				
MAY	8-30	Turners Falls	MF	(5/9) max 30
	12	Easton	BC	1
	16-23	BMBS	TD + v.o.	1
Henry's Elfin				
MAY	15	Sudbury	RF	1
Eastern Pine Elfin				
APR	28	Wellesley	RF	1
	30	Montague	MF	1
MAY	1	Milford; Middleboro	RH; KA	1; 1
	2	Cape Ann	DS/CT	3
		E. Longmeadow	KP	1
	31	Foxboro	BC	1
JUN	5	Mansfield	BC	1
	12	Montague	MF	1
White M Hairstreak				
JUL	31	Easton	BC	1
Early Hairstreak				
JUN	14	Mt. Greylock	ED + v.o.	29
JUL	5	Mt. Greylock	PW	1
Gray Hairstreak				
JUL	7	Easton	LL	1
	17	Easton	BC	3
	26	Naushon Island	DL	1
AUG	21	Medford	BM	3
SEP	19	Eastham	MK	1
OCT	2	Gloucester	DS/CT	1
	9	Dartmouth	TD	1
	18	Wellesley	RF	1

Eastern Tailed Blue			
MAY	7	Foxboro	BC 1
	17	Sudbury	TD 1
JUN	30	Naushon Island	DL 3
JUL	1	Charlton	RH 6
AUG	6	Cape Ann	DS/CT 12
	14	Easton	BC + v.o. 28
SEP	6	Milford	RH 6
	25	Lincoln	DD
OCT	2	Cape Ann	DS/CT
	7	Mansfield	BC 1
Spring Azure			
APR	9	E. Longmeadow	KP 1
	18	Sharon	AC + v.o. 3
	29	Franklin	LL 37
MAY	9	Cape Ann	DS/CT 100
	16	Savoy	ED + v.o. 14
JUL	22	Cape Ann	DS/CT 104
AUG	1-13	Cape Ann	DS/CT (8/1) max 12
	29	BMBS	TD 1
SEP	6	Cape Ann	DS/CT 1
Variegated Fritillary			
AUG	11	Lincoln	DD 1
SEP	13	Sudbury	TD 1
Great Spangled Fritillary			
JUN	23	Montague	MF
	26	Milford; Foxboro	RH; MC 21; 1
	29	Milford	RH 53
JUL	1	Charlton	RH 46
	6	Prescott	DS 55
	11	Easton	LL 79
AUG	1	Cape Ann	DS/CT 10
	14	Easton	BC + v.o. 9
SEP	13	East Gardner	SB
	19	Lincoln; Foxboro	RF; BC 1; 1
Aphrodite Fritillary			
JUN	30	Uxbridge	RH 5
JUL	1	Charlton	RH 25
	2	Easton	LL 12
	4	E Longmeadow	KP 4
	5	New Ashford	PW
	12	Lincoln	DD 1
	17	Charlton	RH 17
	18	Newbury	RF 25
AUG	22	Northbridge	RH 1
SEP	11	Milford	RH 1
Silver-bordered Fritillary			
MAY	17	Sudbury	TD 2
	23	Montague	MF
JUN	5	Milford	RH 2
	9	Sudbury	TD 11
	20	Charlton	RH 1
JUL	31	Easton	BC + v.o. 9
SEP	13	Sudbury	TD 5
	24	Sudbury	TD 1

Harris' Checkerspot				
JUN	5-19	Milford	RH	(6/5) max 22
	10-27	Holden	TD	(6/19) max 178
Pearl Crescent				
MAY	15	Milford	RH	4
	23	Harvard	JC	12
JUN	5	Mansfield	BC	59
JUL	25	Plainville	MC	>100
	31	Easton	BC + v.o.	168
AUG	8	Naushon Island	DL	18
SEP	14	Longmeadow	BC	41
	28	Sudbury	TD	1
OCT	1	Easton	BC	1
Baltimore				
JUN	26	Milford	RH	1
JUL	5	W Boylston	TD	1
	7	Easton	LL	9
	14	Lenox	PW	
Question Mark				
JUN	20,30	Cape Ann	DS/CT	1,1
JUL	28	Williamstown	PW	1
AUG	5	Chatham	RF	1
	13	Concord	RF	1
SEP	14	Worcester	TD	1
	20	Plum Island	RF	5
OCT	8	Gay Head M.V.	RF	2
	25	Wellesley	RF	1
Eastern Comma				
MAR	26	Framingham; Amherst	TE; AM	1; 1
APR	19	Foxboro	BC	1
JUN	29	Wellesley	RF	3
	30	Northbridge;	RH	7; 1
		Uxbridge		
JUL	7	Foxboro	LL	3
	10	Lincoln	DD	1
	16	Williamstown	PW	
	31	Middlesex Fells	BM	1
AUG	29	Watertown	AMc	1
SEP	24	Sudbury	RF	1
OCT	1	Nantucket	SB	1
	9	Carlisle	JC	1
	25	Wellesley	RF	1
Mourning Cloak				
MAR	27	Hingham	RS	1
APR	5	Wellesley	RF	1
	19	Foxboro to Norton	BC,AC	5
MAY	2	Canton	ER	4
	23	Harvard	JC	4
JUN	26,30	Cape Ann	DS/CT	1,1
JUL	20	Easton	LL	2
AUG	21	BMBS	TD	1
SEP	25	Cape Ann	DS/CT	1
OCT	18	Wellesley	RF	1
	24	Northbridge	RH	1

Compton Tortoiseshell			
MAR 27	Leverett	BH	1
APR 18	Sharon	BC, DL	1
MAY 29	Canton	BC	1
JUL 8	Brookline	BC	1
12	Wellesley	RF	1
31	Foxboro	BC	1
SEP 28	Wayland	TD	1
Milbert's Tortoiseshell			
JUN 14	Mt Greylock	JG, ED	1
Red Admiral			
MAY 2	Northbridge	RH	1
27	Cape Ann	DS/CT	1
JUN 3	Wellesley	RF	1
JUL 5	New Ashford	PW	1
17	Brookline	BC	2-3
SEP 23	Cape Ann	DS/CT	2
24	Westport, Dartmouth	BC	5,5
	Wayland	RF	2
OCT 8	Gay Head, MV	RF	4
16	Walpole	DL	1
18	Wellesley	RF	1
American Lady			
MAY 16	Cape Ann	DS/CT	5
JUN 7	Cape Ann	DS/CT	3
8	Cambridge	RF	1
10	Princeton; Lincoln	TD; DD	1; 1
JUL 31	Easton	BC + v.o.	2
AUG 7	Upton	TD	1
8,16	Naushon Island	DL	1,1
SEP 20	Plum Island; Eastham	RF; BC	3; 3
OCT 1	Nantucket	SB	1
5,8	Cape Ann	DS/CT	1,1
Common Buckeye			
SEP 15,19,23	Gloucester	DS/CT	1,1,2
Red-spotted Purple			
JUN 3	Wayland	TD	1
10	Lincoln	DD	1
14	Petersham	DS	5
15	Cape Ann	DS/CT	1
JUL 5	New Ashford	PW	1
23	Essex	RF	1
AUG 1	Holliston	RH	3
	S.Dartmouth	ER	2
13	Lexington	RF	1
14	Easton	BC + v.o.	6
22	Worcester; Cape Ann	TD; DS/CT	1; 1
	E Longmeadow	KP	1
OCT 6	Gloucester	DS/CT	1

White Admiral			
JUN 19	Princeton	TD + v.o.	1
JUL 5	New Ashford	PW	1
AUG 1	BMBS	TD	1
7	Needham	CA	1
14	Rockport	DS/CT	1
SEP 13	East Gardner	SB	1
Viceroy			
MAY 23	Oxbow NWR, Harvard	JC	1
29	BMBS	TD	2
JUN 11	Lexington	RF	1
JUL 24	Milford	RH	9
25	BMBS; Cape Ann	TD; DS/CT	10; 2
31	Easton	BC + v.o.	41
AUG 1	Cape Ann	DS/CT	18
SEP 18	BMBS	TD	1
19	Cape Ann	DS/CT	1
Northern Pearly Eye			
JUN 30	Northbridge	RH	2
JUL 25	BMBS	TD	3
AUG 1	Holliston	RH	1
Eyed Brown			
JUL 10	Wrentham	BC	3
13	Egremont	PW	1
18	Carlisle	JC	3
24	Milford	RH	5
AUG 1	Holliston	RH	7
7	Upton	TD	1
21	Milford	RH	1
23	Stockbridge	PW	1
Appalachian Brown			
JUL 8	Wellesley	RF	1
18	Carlisle	JC	1
31	Easton	TD + v.o.	10
	Middlesex Fells	BM	4
AUG 7	Middlesex Fells	BM	3
14	Easton	BC + v.o.	1
Little Wood Satyr			
MAY 22	Wellesley	RF	4
23	Montague	MF	
24	Wayland	TD	1
31	Foxboro	BC	>200
JUN 30	Cape Ann	DS/CT	8
JUL 5	Cape Ann	DS/CT	20
10	Lincoln	DD	
AUG 21	BMBS	TD	1

Common Ringlet			
MAY	23	Wellesley	RF 1
	25	Sudbury; Montague	TD; MF 4; 1
	30	Easton	BC 1300
JUN	16	Lincoln	AMc 10
JUL	5	Cape Ann	DS/CT
	28	Naushon Island	DL
AUG	14	Easton	BC + v.o. 8
	22	Northbridge	RH 6
SEP	4	Plum Island	RF
	6	W Boylston	TD
Common Wood Nymph			
JUL	2	Norfolk	BC 20
	17	Easton	BC 127
	30	Cape Ann	DS/CT 26
AUG	6	Cape Ann	DS/CT 120
	19	E. Longmeadow (at porch lite)	KP 1
SEP	11	Plum Island	BC, LL 3
	12	Cape Ann	DS/CT 2
Monarch			
JUN	5	Mansfield	BC 2.
	11	Sheffield	PW
	13	Cape Ann	DS/CT 2
JUL	30	Cape Ann	DS/CT 19
	31	Easton	BC + v.o. 18
AUG	5	Chatham	RF 20-30
SEP	THRU-OUT	Cape Ann	DS/CT 9/15, 29)max 500
	12	Westport	SB 85
	15	Naushon Island	JS, RR 500
	20	Salisbury	RF (at roost) 380
	24	Westport (Gooseberry Neck)	BC 640
OCT	1	Nantucket	SB 20
	6	Cape Ann	DS/CT 26
	19	Naushon; Cape Ann	DL; DS/CT 1; 1
Silver-spotted Skipper			
MAY	22**	BMBS	TD 3
JUN	8	Montague	MF
	13	E Longmeadow	KP
	29	Milford	RH 6
JUL	1	Charlton	RH 19
	18	Cape Ann	DS/CT 26
AUG	14	Easton	BC + v.o. 1
	15	Cape Ann; BMBS	DS/CT; TD 2; 1
Hoary Edge			
JUN	5	Milford	RH 1
	11	Middlesex Fells	RF 1
	20	Charlton	RH 2
	27	BMBS	TD 1
	30	Northbridge; Uxbridge	RH 4; 2
JUL	1	Charlton	RH 7
		Turners Falls	MF 1
	4	E Longmeadow	KP 1
	10	Wrentham	BC 1
	17	Charlton	RH 3

		Southern Cloudywing		
JUL 10	Turners Falls	MF		
		Northern Cloudywing		
MAY 22**	BMBS	TD		3
31	Foxboro	BC		1
JUN 11	Middlesex Fells	RF		3
26	Milford	RH		1
27	BMBS	TD		1
JUL 1	Charlton	RH		2
		Dreamy Duskywing		
MAY 12	Easton	BC		2
14	Middlesex Fells	RF		7
16	BMBS	TD		6
JUN 19	Milford; Holden	LL; TD		2; 1
		Sleepy Duskywing		
MAY 12	Easton	BC		2
22	Plymouth	BC + v.o.		3
29	Milton	BC		2
		Juvenal's Duskywing		
MAY 1	Milford	RH		1
6	Wayland	TD		1
14	Middlesex Fells	RF		>30
16	BMBS	TD		22
22	Plymouth	BC + v.o.		>15
31	Oxbow NWR, Harvard	AMc		
JUN 18	Cape Ann	DS/CT		1
19	Milford	LL		2
		Horace's Duskywing		
JUL 17	Easton	BC		1
24	Milford	RH		1
31	Easton	BC		1
AUG 1	Holliston	RH		1
14	Easton	BC + v.o.		4
		Wild Indigo Duskywing		
MAY 12	Easton	BC		1
22	Plymouth	BC + v.o.		2
23	BMBS	TD		1
JUN 5	Medfield	BC		1
JUL 20	Brookline	BC		1
31	Easton; Wellesley	BC; RF		4; 5
AUG 1	Easton	JG, BC		6
7	Upton	TD		1
14	Easton	BC + v.o.		4
		Common Sootywing		
MAY 30	Upton	TD		2
JUN 5	Mansfield	BC		1
JUL 18	BMBS	TD		1
24	E Longmeadow	KP		
31	Foxboro	TD + v.o.		
		Arctic Skipper		
LATE MAY	Stockbridge	PW		

Least Skipper				
JUN	9	Sudbury	TD	1
	19	Milford	RH	18
JUL	17	Easton	BC	2
AUG	8	Naushon Island	DL	12
	29	BMBS	TD	1
SEP	5	Milford	RH	2
	11	Wellfleet	SB	7
	14	Longmeadow	BC	4
European Skipper				
JUN	5	Mansfield	BC	2
	20	Charlton	RH	84
	30	Cape Ann	DS/CT	>1000
JUL	1, 5	Cape Ann	DS/CT	>1000, >1000
	1	Middleboro	KA	Thousands
	18	Cape Ann	DS/CT	1
Leonard's Skipper				
AUG	21	Milford	RH	1
	22	Northbridge;	RH; MF	1; 1
		Montague		
	29	BMBS	TD	3
SEP	6	Milford	RH	1
	11	Wellfleet	SB	2
	18	W Boylston	TD	2
	20	Truro	BC, LL	5
Cobweb Skipper				
MAY	14	Montague	MF	
	16	BMBS	TD	15
	22	Plymouth	BC + v.o.	20
	27	Foxboro	BC	6-8
	30	Upton	TD	5
JUN	5	Foxboro	TD	
Indian Skipper				
MAY	27	Foxboro	BC	1
	30	Easton; Worcester	BC; TD	4; 1
	31	Foxboro	BC	7
JUN	11	Middlesex Fells	RF	1
	19	Princeton	TD	1
Peck's Skipper				
MAY	22	Wellesley	RF	1
	23	BMBS	TD	11
JUN	8	Cape Ann	DS/CT	9
	9	Sudbury	TD	40
AUG	3	Wellesley	RF	11
	14	Easton	BC + v.o.	31
	21	Middlesex Fells	BM	15
SEP	14	Longmeadow	BC	6
	25	W Boylston	TD	1
Tawny-edged Skipper				
MAY	31	Foxboro	BC	2
JUN	5	Mansfield	BC	2
JUL	2	Easton	LL	1
AUG	7	Upton	TD	1
	25	Sudbury	TD	1

Crossline Skipper				
JUN	30	Uxbridge	RH	1
JUL	1	Charlton	RH	6
	4	Uxbridge	RH	3
	10	Wrentham	BC	9
	20	Easton	LL	6
Long Dash				
JUN	9	Sudbury	TD	1
	13	Cape Ann	DS/CT	3
	20	Charlton	RH	2
	27	BMBS	TD	3
JUL	6	Williamstown	PW	1
Northern Broken Dash				
JUL	10	Lincoln	DD	1
	16	Williamstown	PW	
	18	BMBS	TD	1
	25	BMBS	TD	6
AUG	7	Foxboro	LL	1
	14	Easton	BC	1
	29	BMBS	TD	1
Little Glassywing				
JUN	29	Milford	RH	3
JUL	2-17	Cape Ann	DS/CT	(7/17) max 3
	5	BMBS	TD	2
	17	Charlton	RH	8
	25	BMBS	TD	1
Delaware Skipper				
JUN	29	Milford	RH	3
	30	Sudbury	TD	1
JUL	1	Charlton	RH	1
	4	Uxbridge	RH	5
	10	Wrentham	BC	10
	17	Charlton	RH	7
	22	Cape Ann	DS/CT	5
	25	BMBS	TD	1
Mulberry Wing				
JUL	17	Easton	BC	21
	20	Cape Ann	DS/CT	20
	25	BMBS	TD	2
AUG	1-13	Cape Ann	DS/CT	(8/1) max 6
				(8/6) max 5
	7	Foxboro	LL, BC	1
Hobomok Skipper				
MAY	23	BMBS	TD	11
	27	Foxboro	BC	1
JUN	3	Wellesley	RF	2
	5	Milford	RH	4
	27	BMBS	TD	3
JUL	8	Cape Ann	DS/CT	1

		Broad-winged Skipper		
JUL 18-AUG 15	BMBS	TD		(7/25) max 60
Dion Skipper				
JUL 10	S. Berkshire County	DW		20
Black Dash				
JUL 17	Easton	BC		212
25	BMBS	TD		2
30	Cape Ann	DS/CT		2
AUG 6	Cape Ann	DS/CT		2
Dun Skipper				
JUN 29	Milford	RH		4
JUL 1	Charlton	RH		3
5	Worcester; Mansfield	TD; RH		1; 1
17	Charlton	RH		18
26	Naushon Island	DL		3
AUG 1	Williamstown	PW		
7	Upton	TD		1
22	Northboro	RH		1
Dusted Skipper				
MAY 26	Wayland	TD		1
30	Upton	TD		3
31	Foxboro	BC		57
JUN 5	Milford	RH		4
11	Middlesex Fells	RF		2
29	Milford	RH		1
Pepper and Salt Skipper				
MAY 16**	BMBS	TD		1
23	BMBS	TD		4

1993 Cloudless Sulphur Flight

by Richard Forster

Despite the fact that butterflies are almost as universally recognized by the general public as birds are, there has been no groundswell of interest in butterfly watching as an organized hobby until very recently. The Massachusetts Butterfly Atlas Project sponsored by the Massachusetts Audubon Society and conducted from 1986 to 1990 kindled a spark of interest in butterfly watching that has since been fanned to brush fire proportions largely through the efforts of the fledgling Massachusetts Butterfly Club.

Of the approximately 120 species of butterflies that occur in Massachusetts, the majority are relatively predictable in their appearance in the state. They have fairly well defined emergence dates and flight periods with little variation except for minor fluctuations due to weather conditions. There are certain other species that occur with a fairly reliable degree of frequency but are subject to annual variations in abundance due in large part to periodic migrations in spring and/or fall. Examples of these include Red Admiral, Painted Lady, and Question Mark. Even fewer species of butterflies are known primarily as emigrants from further south in late summer or fall. Best known for this

phenomenon is probably the Common Buckeye, but the Cloudless Sulphur falls also in this category.

During the fall of 1993, I was fortunate to chance upon my first encounter with the Cloudless Sulphur (*Phoebis sennae*) in Massachusetts. On September 12, I was birding along the coast in Yarmouth at the mouth of the Bass River when I noticed a large yellow butterfly pass quickly by and disappear behind some parked cars. I was quite excited but was cursing my luck in not getting a better view since it would have been my first Cloudless Sulphur in the state. However, within minutes I was able to see two more Cloudless Sulphurs. These were also flying rapidly by but the observation period was lengthy enough to clearly identify them as Cloudless Sulphurs. Their large size, about the size of a large fritillary, and clear yellow upper surface of the wings made them easy to identify.

The following morning I was birding at Morris Island in Chatham. Birds were scarce and I was keeping an eye open for Cloudless Sulphurs. Finally, about 9:30 I noticed one flitting through a yard and in the next hour and a half saw an additional five or six flying about. All of the individuals appeared to be in fresh condition. The only one that I was able to observe alighted was a male. When I departed Morris Island, I stopped along the causeway to chat with an acquaintance and noted three more Cloudless Sulphurs. All of these were flying purposefully down the causeway in the direction of Morris Island. When I arrived home I called Brian Cassie to tell him of my sightings so that he could alert others to the fact that Cloudless Sulphurs were around and moving. Brian advised me that he had heard of a few other Cloudless Sulphurs and would pass the word along. Within the following week Cloudless Sulphurs were reported widely from many localities along the southeastern coastal plain. The most interesting was an individual sighted at Eastern Point, Gloucester. This was the only individual during the flight observed north of Boston. Reports seemed to reach a peak on September 19 following two days of fog and light rain.

I next encountered Cloudless Sulphurs while on Martha's Vineyard during a futile search for albatross. Two were seen in flight at Gay Head in the morning of October 8, and the following day three were seen in the afternoon in the Katama/Norton's Point area at the southeastern portion of the island. Note that Cloudless Sulphurs were seen in two other locations on October 8.

In the United States, the Cloudless Sulphur is resident in Florida, along the Gulf Coast, and in southern California. In mid-summer it moves northward into the midwest and to the Carolinas where it breeds. Presumably the offspring of this brood are emigrants farther north in late summer or early fall. The dynamics of this cycle are quite variable. Emigrants northward in late summer or fall are regular in the vicinity of Cape May, NJ; less so in the New York City environs where they are irregular and very variable (Glassberg, 1993). In Massachusetts, they are even more irregular and variable than the New York area. During the Massachusetts Butterfly Atlas Project, Cloudless Sulphurs were recorded only in 1987, at Naushon Island, Chatham, and Westport. During the 1993 fall flight, Cloudless Sulphurs were very much in evidence at Cape May (where egg laying was seen in September) and coastal New York.

I would like to add a few comments concerning my sightings. With only one exception, all the individuals that I saw were immediately adjacent to the seashore, either in open areas or along the dunes. Most were engaging in a very directional movement, generally from west to east, but more accurately were following parallel to the beach, the dominant geographical feature. Their flight was low (1-4 meters), and very swift with no indication they would pause under any circumstances. Weather conditions on all the dates that I observed them were sunny, warmer than normal, and with brisk southwest winds. During their period of occurrence, the optimum days for their presence would have been September 14 and 15 – days in the high 80's and low 90's, sunny and with southwest winds. Since these days fell in midweek, there were likely few observers looking for them. It is interesting to note that the northernmost sighting was observed during this period (September 15).

I have resisted putting this flight of Cloudless Sulphurs into historical perspective since the history is woefully incomplete and comparison would be meaningless. Regardless of how completely the fall flight of 1993 is documented, at least we now have substantial data to serve as a baseline for future observations. Hopefully the network of interested butterfly watchers will continue to grow and we'll be in a better position to document future short term phenomena such as this.

The following is a chronological listing of Cloudless Sulphurs seen and reported this fall. Anyone who can add to this compilation should contact the MBC.

Cloudless Sulphur				
AUG	8-16	Manomet	MK	1
SEP	(EARLY)	Manomet	DLh	1
	4	Monomoy Island	BN	1
	10	Naushon Island	DL	1
	11	Martha's Vineyard	SP	1
	12	Yarmouth	RF	3
	13	Chatham (Morris Is.)	RF	±10
		Yarmouth	RF	1
	15	Gloucester, Eastern Pt	CT/DS	1
		Manomet	MK	1
	19	Cuttyhunk Island	JSo	2
		Chatham (Morris Is.)	JH	1
		Wellfleet	SB, JC	1
		Plymouth Beach	JR	1
		Cedarville	KD	1
	20	Chatham (Morris Is.)	BC, LL	1
	25	Orleans (Pochet Is.)	MK	1
		Chatham (Morris Is.)	PB	2
	26	Naushon Island	DL	1
OCT	1	Naushon Island	DL	1
	8	N.Scituate The Glades	WP	1
		Cedarville	JH	1
		M.V. (Gay Head)	RF	2
	9	M.V. (Norton's Pt.)	RF	3

Calendar of Events - 1994

Several trips will be made to Middlesex Fells between May and September. If you are interested, contact Brian Cassie (508-543-3512) for the schedule.

APRIL

- 15 (Fri) - M.A.S. BROAD MEADOW BROOK SANCTUARY WORCESTER, MA M.B.C. MEMBERS' MEETING 6:30pm (FOR MORE INFO: BRIAN CASSIE 508-543-3512) Bring some of your favorite butterfly slides or videos along. Food and refreshments will be provided.

MAY

- 6 - 8 (Fri-Sun) - NORTH AMERICAN BUTTERFLY ASSOCIATION (NABA) MEMBERS' MEETING (FOR MORE INFO: BRIAN CASSIE 508-543-3512) Richard Stockton College of New Jersey, Pomona, NJ. Learn more about identification, photography, gardening, natural history, and see some of the butterfly species of the pine barrens.
- 28 (Sat) - FOXBORO AND VICINITY (LEADER: BRIAN CASSIE 508-543-3512) There is a good opportunity of seeing the State-listed Hessel's Hairstreak as well as some other uncommon and local butterflies like the Juniper (formerly Olive) Hairstreak and Frosted Elfin.

JUNE

- 11 (Wed) - W. BRIDGEWATER (LEADER: BRIAN CASSIE 508-543-3512) (1:00-4:00), in conjunction with M.A.S. - Stony Brook Nature Center.
- 11 (Wed) - GRAFTON (LEADER: LYN LOVELL 508-473-7327) This walk is in conjunction with the Grafton Conservation Commission.
- 18 (Sat) - HOLDEN (LEADER: TOM DODD 508-478-6208). Last year a count of 178 Harris' Checkerspots was made at a site that we will visit. This trip should coincide with the main portion of their short two week flight period.

JULY

- 9 (Sat) -FRANKLIN COUNTY "4TH OF JULY BUTTERFLY COUNT" (COORDINATOR: MARK FAIRBROTHER 413-367-2695)
- 10 (Sun) - FOXBORO "4TH OF JULY BUTTERFLY COUNT" (COORDINATOR: BRIAN CASSIE 508-543-3512)