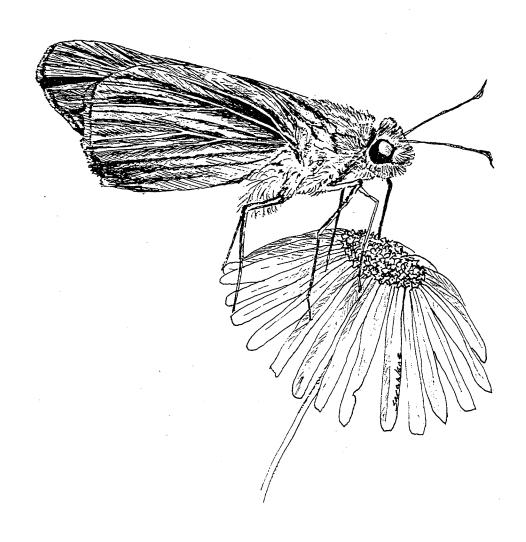
MASSACHUSETTS BUTTERFLIES No. 5

February 1995



ON JAN.28, 1995, THE MASSACHUSETTS BUTTERFLY CLUB BECAME A CHAPTER OF THE NORTH AMERICAN BUTTERFLY ASSOCIATION. WE ARE NOW KNOWN AS NABA-MASSACHUSETTS BUTTERFLY CLUB. OUR GOALS ARE THE SAME: EDUCATION, CONSERVATION, INTERPRETATION, AND FUN. THANKS TO ALL OF YOU FOR YOUR CONTINUING SUPPORT.



Membership in NABA-MBC brings you "American Butterflies," "Massachusetts Butterflies, "and all of the benefits of the association. Regular annual dues are \$25. National office: NABA 4 Delaware Rd., Morristown, NJ 07960 [201-285-0907]. Separate subscription to "Massachusetts Butterflies" for non-members of NABA-MBC is \$6. Local address: NABA-MA Butterfly Club POBox 211 Foxboro, MA 02035-0211

OFFICERS OF NABA-MASSACHUSETTS BUTTERFLY CLUB

PRESIDENT- MARK FAIRBROTHER; VICE-PRESIDENT - MADELINE CHAMPAGNE TREASURER-LYN LOVELL; SECRETARY-BRIAN CASSIE

"MASSACHUSETTS BUTTERFLIES" STAFF

EDITOR - BRIAN CASSIE; PRODUCTION MANAGER - GEORGE CASSIE

COVER ILLUSTRATION OF OCOLA SKIPPER BY SARAHJANE CASSIE

NABA-MBC BOOK AND SLIDE COLLECTIONS

OUR SPECIAL THANKS TO STAN BOLTON FOR HIS DONATION OF A NUMBER OF BOOKS TO OUR LIBRARY. PLEASE CONTACT BRIAN CASSIE [telephone 508-543-3512] IF YOU ARE INTERESTED IN BORROWING FROM OR DONATING TO OUR COLLECTION.

SPECIAL THANKS ALSO TO MARK FAIRBROTHER FOR HIS DONATION OF SLIDES. WE ARE ALWAYS INTERESTED IN EXPANDING OUR SLIDE COLLECTION. SLIDES OF ANY LEPIDOPTERA ARE WELCOME, AS ARE SLIDES OF FLOWERS, NATURAL HABITATS, AND BUTTERFLY GARDENS. AGAIN, PLEASE CONTACT BRIAN ABOUT THE COLLECTION.

RHODE ISLAND CHECKLIST AVAILABLE

HARRY PAVULAAN HAS PUT TOGETHER A TOWN-BY-TOWN BUTTERFLY LIST FOR RHODE ISLAND. WE HAVE COPIES AVAILABLE FOR A SASE. WRITE BRIAN CASSIE AT P.O.BOX 211 FOXBORO, MA 02035-0211. HARRY IS ALSO LOOKING FOR HELP THIS SUMMER WITH BUTTERFLY SURVEYS IN RHODE ISLAND TOWNS NEAR THE MA BORDER. CONTACT BRIAN CASSIE FOR DETAILS.

1994 SEASON SUMMARY AND RECORDS

Thanks to all of you who provided records for the year. Some observers sent in a single butterfly note for the year. At the other extreme were Claudia Tibbetts and Doug Savich, who tallied more than 20,000 individuals counted and submitted in 1994. We are delighted with the interest you have shown in helping keep track of the state's butterflies.

The most outstanding aspect of the 1994 season was the mildness of the fall. The weather was wonderful, and because of that the butterflies kept flying. Twenty-four species flew to record late dates: Black Swallowtail, Spicebush Swallowtail, Cabbage White, Orange Sulphur, Hoary Elfin, Gray Hairstreak, Spring Azure, Silvery Blue, Atlantis Fritillary, Pearl Crescent, Question Mark, Eastern Comma, American Lady, Painted Lady, Viceroy, Common Ringlet, Monarch, Long-tailed Skipper, Wild Indigo Duskywing, Common Sootywing, Least Skipper, Leonard's Skipper, Cobweb Skipper, and Peck's Skipper. An Ocola Skipper, an extraordinarily rare vagrant from the South, rode some of those warm southerly breezes all the way up to Wellesley.

A few species established record early flight dates this year: Coral Hairstreak, Southern Hairstreak, Silvery Blue, Eastern Comma, Red Admiral, American Lady, Eyed Brown, Monarch, Northern Broken Dash, and Mulberry Wing.

OBSERVERS: C.Anderberg [CA], K.Anderson [KA], S.Arena [SA], J.Baird [JBa], J.Berry [JB], O.Blanchard [OB], J.Boettner [JBo], S.Bolton [SB], P.Burns [PB], B.Cassie [BC], S.J.Cassie [SJC], J.Center [JC], M.Champagne [MC], D.Diggins [DD], T.Dodd [TD], E.Dunbar [ED], R.Forster [RF], T.Fowler [TF], T.Hansen [TH], E.Hayward [EH], R.Hildreth [RH], E.Jylkka [EJ], A.Keith [AK], V.Laux [VL], L.Lovell [LL], B.Malcolm [BM], A.McGinnis [AMc], I.McKenzie [IMc], P.Miliotis [PM], P.O'Neill [PO], E.Pallotta [EP], H.Pavulaan [HP], W.Petersen [WP], M.Polona [MP], D.Potter [DP], R.Roth [RR], K.Ryan [KR], D.Savich [DS], D.H.Small [DHS], J.Sones [JS], R.Stymeist [RS], C.Tibbetts [CT], B.VanDusen [BV], R.Walton [RW], P.Weatherbee [PW], R.Wendell [RWe], E.Williams [EW], S.Zendeh [SZ].

Not all records received are recorded in "Massachusetts Butterflies", though all are saved for the archives. For each species, early and late flight dates, maximum high counts, and various representative records are included. One asterisk signifies a new "latest flight date"; two asterisks signifies a new "earliest flight date." Unusually high counts are bold-faced. Locality BMBS is Broad Meadow Brook Sanctuary, Worcester.

Ovipositing, mating, and larval records are on file for 1994. Thanks to Jim Berry, Brian Cassie, Tom Dodd, Mark Fairbrother, Richard Hildreth, Lyn Lovell, and Diane Potter for providing them. We regret that lack of space prevents our publishing them at this time.

SWALLOWTAILS

Very good numbers of Black Swallowtails were reported from western MA. In eastern counties, small, widely-spread populations have been the norm for many years and 1994 was no exception. Spicebush Swallowtails were reported west to east, perhaps in smaller numbers than in the past two or three years. We still have no definitive way of separating all listern Tiger Swallowtails from all Canadian Tiger Swallowtails, but it seems clear that both are in MA and both probably had very good years. A single Pipevine Swallowtail was seen in Hingham. This species has been practically nonexistent since a minor surge in records in the late 1980's. One 1993 Berkshire Co. sighting was received belatedly [E.Dunbar].

WHITES AND SULPHURS

No especially large populations of any whites or sulphurs were reported. It would be nice to get some additional information on the "veined whites," namely, West Virginia White and Mustard White, both of which are restricted to western MA. The Mustard White is especially poorly-known from the state. Clouded Sulphurs were seen at eight sites in November; Orange Sulphur at nine. In a normal weather year, there are almost no records for sulphurs after October. In 1994, individual Orange Sulphurs were observed at three localities on Martha's Vineyard in December.

GOSSAMER WINGS

Bog Coppers were reported from new localities. Has anyone seen this species in big commercial cranberry bogs? Reports of Bronze Copper outside of its Sudbury-Concord stronghold are few, so the Windsor sighting was a treat. Record high counts of both Henry's Elfin [8 @ Plum Island] and Frosted Elfin [24+ @ Turners Falls] were made in 1994. Where are the elfins in western MA? West of the Connecticut River Valley, there was but a single sighting. If there was a spring flight of Gray Hairstreaks, it went totally unnoticed. Three of the four Southern Hairstreaks observed were flying earlier than in any previous year, at least to the extent we are able to determine. None of the hairstreaks had big flight years. Silvery Blues [see previous issues of "MB"] have been spreading southward across MA. In 1994, MBC members found Silvery Blues in six localities. Please continue to report every individual of this new MA colonizer you see.

NYMPHALIDS

In typical form, Variegated Fritillaries occurred in very small numbers. The greater fritillaries [Great Spangled, Aphrodite, and Atlantis] enjoyed good seasons, though Aphrodite was scarcer than usual in the eastern counties. Our other large fritillary, the Regal, may possibly make a comeback in the state, through the combined efforts of many organizations. This species was recently extirpated from New England. The lesser fritillaries [Silver-bordered and Meadow] were seen in small numbers throughout their ranges. The so-called "punctuation anglewings," the commas and Question Mark, are subject to great fluctuations in populations from year to year. 1994 was a banner year for our two commonest species. We received reports of 179 Question Marks [compared with zero in 1992!] and 116 Eastern Commas. Most Compton Tortoiseshells were seen during the spring and there were but three Milbert's

Tortoiseshells found. Red Admirals staged a mini-mini-flight in mid-April in a few eastern MA localities, but were generally unreported until late June / early July elsewhere. The Painted Lady flight was better-than-average and American Ladies flew in very good numbers after two poor seasons. You never know when a good Buckeye year will come along. There was a major incursion in parts of MA in 1990; 1994 saw a smaller, yet more widespread flight, with reports from the Berkshires to Cape Cod and Martha's Vineyard. At least 93 individuals were noted [compared with zero in 1992 and 1-2 in 1993]. On the Southern Berkshire Co. Fourth of July Count [unfortunately not received by "MB"] there was a single Hackberry Emperor seen in Ashley Falls. This may well be the first Berkshire Co. record and perhaps the only MA record for the species outside the Connecticut Valley. Excellent numbers of Redspotted Purples were seen in western MA and the banded form [a.k.a. White Admiral] put in a few unusual eastern MA appearances, in Sudbury and Wellfleet. Northern Pearly Eyes were more widely reported than usual, while Little Wood Satyrs were noticeably low. Everyone notices what Monarchs are doing, so it will come as no surprise to hear that 1994 was a terrific year for the species. Record early and late flight dates were set, with two still on the wing in December! In Norfolk, a Monarch eclosed from the chrysalis on the late date of October 21. More than 2000 Monarchs were counted at Eastern Point, Gloucester on September 13 and more than 1000 were observed there into October. Eastern Point consistently produces the highest counts of fall migrant Monarchs in MA.

SKIPPERS

Skippers as a family are highly underreported [and under appreciated, I might suggest]. The third and fourth Long-tailed Skipper records for MA were made this September in gardens of MBC members [see article in this issue]. The outstanding butterfly of the year was an Ocola Skipper found by Richard Forster in Wellesley in late September [again, see accompanying article]. Our friends in the New York City Butterfly Club, as well as MBC member Harry Pavulaan, had warned us to be on the lookout for these southern strays, which were staging impressive flights further south.

No Southern Cloudywings were seen east of Worcester Co. and no Horace's Duskywings were reported outside of Milford! Arctic Skippers are patchily distributed across the northern half of the state, I think. Is this right? We would like to here about all Arctic Skipper locales in MA. Doug Savich and Claudia Tibbetts reported their first ever Least Skippers at Cape Ann in late August and then kept seeing them to the late date of October 16. European Skippers flew in typical abundance this year, while Leonard's Skipper was reported in better-than-average numbers. Another skipper that is a bit of an enigma is the Tawny-edged. It appears to be much less common than a decade ago. Is there anyone who has an opinion on the Tawny-edged Skipper's present status anywhere in MA? Broad-winged Skipper was a great butterfly for Diane Potter to get on her yard list in Heath. This may be the westernmost MA record. The calcareous fens in Sheffield are home to a good population of Dion Skippers. Southern Berkshire Co. is the only place in MA the species has been found.

BLACK SWALLOWTAIL

MAY	21	Conway	2	DP
	28	Great Barrington; Linco	oln 1;2	PW;RW
	29	South Hadley	1	TF
	31	Martha's Vineyard	1	AK
JUN	5	Eastham	3	JC
	8	Deerfield	12	DP
	14	Heath	4	DP
AUG	6	Windsor	12	DHS
SEP	2	Framingham	2	RF
	13	Truro	1	JS
	17	Martha's Vineyard	1	AK
OCT	23*	South Dartmouth	1	JC
		CANADTAN DIC	er swallowtail	
			R SWALLOWTAIL	
MAY	4	Norfolk; Watertown	2;1	CA; AMc
	9	Sudbury	1	TD
	28	Foxboro	11	BC
	29	Martha's Vineyard	2	AK
JUN	-	Heath	12	DP
	4,18	Middlesex Fells	6,5	BM
	10	Prescott; Mt.Greylock	30,17	DHS; ED
	22	Mt.Greylock	6.5	TD
JUL		Heath	11	DP
	10	Prescott	65	DHS
	27	Mt.Auburn, Cambridge	12	IMC
AUG	28	BMBS; Foxboro	1;2	TD;BC
SEP	18	Cape Ann	2	DS,CT
		SPICEBUSH	SWALLOWFAIL	e e
MAY	9	Sudbury	1	TD
	28	Martha's Vineyard	1	PM
JUN		Milford, Holliston	1,1	RH
	11	Quabbin	1	JC
	17	Middlesex Fells	2	BM
JUL	1-31	Cape Ann	$\max 7/10 = 6$	DS,CT
	10	BMBS	2	AMC
	21	Orange	2	DHS
AUG	2	Norfolk	3	BC
	17.	Brewster	1	HP
SEP	10	Wellfleet	1	· JC
	18*	Deerfield	1	DP

PIPEVINE SWALLOWTAIL

JUL 11	World's End Res., Hingham	1 .	BC
	MUSTARD WHIT	E	
MAY 5,10 29	Plainfield Windsor+Peru	12+	PW MF
	· WEST VIRGINIA W	HITE	
APR 30 MAY 10 15 21 29 JUN 3,4	Deerfield Deerfield Rowe Mt.Greylock; Conway "Berkshires" Heath	3 2 1 12;1 widespread 1;1	MF DP DP JC;DP MF DP
	CABBAGE WHIT	E	
APR 15 23 27 30 JUN 19 JUL 4 23 AUG 10 SEP 3 OCT 1-30 NOV 5 DEC 3*	Wellesley; Sudbury Newburyport Cape Ann Ipswich Wellesley Hawley Northbridge Hawley Westport Cape Ann max 10/2 Cape Ann; Newburyport Long Island, Quincy	1-2;1 1 3 7 75 100 71 100 200 = 41 1;1	RF;TD RF DS,CT JB RF DP RH DP BC DS,CT DS,CT;RF
	CLOUDED SULPH	IUR	
APR 30 MAY 9-31 15 21	EMBS Cape Ann max 5/29 Milford Conway	2 = 10 3 20	TD RH DP
JUL 4 21 AUG 27 SEP 15 OCT 30 NOV 13 19	Hawley Orange Newburyport Rutland; Bolton Flats Framingham; Newbury; Northbridge South Dartmouth; Katama, MV Cape Ann	30 82 22 75;13 5;5;4 12;1	DP DHS BM DHS;RH RF;JB;RH SA;AK DS,CT
	<u>-</u>	•	•

ORANGE SULPHUR

MAY	10–31 30	Cape Ann Wellesley	$\max 5/30 = 0$	7 2	DS,CT RF
JUN		Athol		2	DHS
JUL		Katama, MV		50+	AK
001	21	Orange		40	DHS
	23	Northbridge		21	RH
3.770		Katama, MV		350+	AK
	20-21			12	BM
AUG		Newburyport		26	DHS
	29	Athol		60	BC
SEP	3	South Dartmouth		9	RH
QCT		Milford	max 11/9 =	4	DS,CT
NOA		Cape Ann	max 11/3 -	35+	AK
	13	Katama, MV		2	TD
	17	Sudbury		1	AK
DEC	22	West Tisbury		1	AK
	26*	[ak's house on MV]		T	AK
			HARVESTER		
		Middlesex Fells		1	BM
JUN		Northbridge; Hancoc	1 -	1;1	RH; RWe
	5		A	1	DP
	15	Rowe		1	TD
AUG		BMBS		1	DP
SEP	15	Rowe		-	
	٠	AM	ERICAN COPPER		
MAV	15	Milford		1	RH
T.T.Y.T	20	Sudbury		2	TD
	25-31		max 5/31	= 2	DS,CT
	28,31	-		2,3	AK
77.73.		Groveland		10	JB
JUN		Cape Ann		16	DS,CT
	. 11	Newburyport		5	BM
	3 27		max 9/18 =	= 11	DS,CT
SEE		Cape Ann Wellfleet		24	JS
	12			1	RH
OC!		Milford		1	TD
	10	Plum Island		1	DS,CT
	12	Cape Ann		1	BC,SJC
	17	Foxboro		1	AK
	22	Martha's Vineyard		ī	TALL
•		1	BRONZE COPPER		
ਜਾ	L 2	Windsor		1 .	DHS
	ь 2 Р 19	Concord		1	RF ·
O.C.	ェ ユフ	COIRCOLG			

BOG COPPER

JUN 2 JUL 1		Sudbury Colrain; Wachusett Res. Warwick	30 50;5 8	TD JB;TD DHS	
		CORAL HAIRSTREAK	c [*]		
1 1	9 10 17 19	BMBS Deerfield Cape Ann Gill Heath Savoy Holden	3 9 3 1 1 4	TD DP DS;CT DHS DP DP TD	
		ACADIAN HAIRSTREA	7K		
JUL 2	2 4 22	Easton; Holliston; BMBS BMBS; Wachusett Res. Savoy, Florida	7;1;1 6;3 1,1	BC;RH;TD BM;TD DP	
	EDWARDS' HAIRSTREAK				
JUN 3	2	Middlesex Fells; Foxboro Cape Ann max 7/12 Blue Hills Reservation BANDED HAIRSTREA	= 2 1	BM;BC DS;CT BC	
JUL	23 26 1–20 2 4 9	Framingham Hopedale; Westfield; BMBS Cape Ann max 2 on severa South Hadley BMBS; Wellesley; Milford Gill BMBS	1 2;1;6 1 dates 1 55;5;1 1	RF TD;JC;TD DS;CT TF BM;RF;RH DP TD	
		STRIPED HAIRSTRE	AK		
JUL	26 30 1 3 4 7 10,27	BMBS Middlesex Fells Turners Falls Granby; Uxbridge Wellesley; BMBS Martha's Vineyard Cape Ann BMBS	1 7 1 1;3 1;1 1 1,1	TD BM MF TF;RH RF;BM AK DS,CT TD	
AUG	7	Chelmsford	1	JC	

SOUTHERN HAIRSTREAK

JUL	23**-26 25 .2	SBMBS Braintree Holliston			2 1 1	TD BC RH
			JUNIPE	R HAIRSTRI	EAK	
MAY JUN	29	Foxboro Sudbury Sudbury			25 1 1	BC & co. RF;RW RF
			BRC	WN ELFIN		
APR MAY JUN	28 30 7-30 12 23	BMBS Montague Cape Ann; BMBS Cape Ann Myles Standish "" Grafton		max 5/9 Forest "		TD MF DS,CT; TD DS,CT RF;RW RF;RW LL & CO.
	HOARY ELFIN					
	27 12–23*	Myles Standish " "	"		2 = 6	JF DD;RF;RW
MAY		Turners Falls Sudbury Foxboro		max 5/11	= 24+ 1 1	MF TD BC & co.
			HENE	RY'S ELFIN	1	
APR	23 2 24 27 30	Milford Northbridge Sudbury Plum Island			1 1 3 8	RH RH TD RF
MAY		Sudbury Newton		max 5/	4 = 4 1	TD RH

EASTERN PINE ELFIN

APR	24	Wachusett Resevoir	2	TD
	30	Middleboro	3	KA
MAY	10	Deerfield	2	DP
	12	Myles Standish S.F.	3	RF;RW
	14	South Hadley	1	TF
	15	Cape Ann; Middlesex Fells	1;1	DS,CT; BC
	28	Foxboro	3	BC & co.
	30	Spencer	3	TD
		EARLY HAIRSTRE	AK	
MAY	29	Mt.Greylock	1	MF
JUN	10	11	11	ED
	22	n	1	TD
		GRAY HAIRSTRE	74 K	
		GNAI MAINDINE	rativ	
JUL	10	Blue Hills Res.	1	BC
	16	Northampton	1	TF
	23	Northbridge: Wachusett Res.	1;1	RH;TD
	30	Marshfield	1	AMC
AUG	3	New Salem	1	DHS
SEP	3	Westport, South Dartmouth; MV	1,2;2	BC;AK
	10	Wellfleet	3	JC
	13	Truro	1	JS
	17	Martha's Vineyard	1	AK
	20	Sudbury	1	TD
OCT	24*	Wellesley	1	R F
		EASTERN TAILED-	RTJTR	
		HADIHW HAIHD-	DHOL	
MAY	21	South Hadley	1	TF
	24	Sudbury	1	TD
	30	Cape Ann	5	DS,CT
JUN	1-30	Cape Ann max on 6/1	= 10	DS,CT
JUL	24	Milford	11	RH
AUG	26	BMBS	9	TD
	27	Charlton	30	RH
	28	Holliston-Sherborn	21	RH
SEP	9	Wellesley	11	RF
	13	Truro	1	JS
	17	West Newbury	7	JC
	21	Sudbury; Heath; Cape Ann	1;1;4	TD;DP;DS,CT
OCT	8 .	Milford	1	RH
	13	Foxboro	1	BC,SJC

SPRING AZURE

APR	11	Sudbury; Wellesley	1;1	DD;RF
DL IV	13-30	4/20	79	DS;CT
	14	Norfolk	1	BC
	23	Holliston	34	RH
	24	Ipswich; Hopedale	1;15	JB;TD
MAY	4	Harvard	19	SB
1121	12	Miles Standish S.F.	50	RF;RW
JUN		Mt.Greylock	20	TD
JUL		Holliston	1	RH
COL		Cape Ann	4	DS,CT
AHG		Cape Ann max on 8/10	= 2	DS,CT
SEP		BMBS	1	TD
	J			
		SILVERY BLUE		
MAY	21**	Pittsfield	1	RWe
	29	Adams	3-4	MF
	30	Gloucester	1	DS,CT
JUN		Prescott Peninsula, Quabbin	5+	JBo & co.
		Gloucester max on 6/15 =	= 3	DS,CT
	11	Amherst	1	JB,MF,& co.
	13	Adams	20-25	OB
	19*	Middlesex Fells	1	BM
		VARIEGATED FRITILI	ARY	
JUL	10	Gloucester	1	DS,CT
	23-	Grodester	_	•
	10	Wachusett Res. max on 8/20,28	= 5	TD
	28	Athol	1	DHS,MP
HOG	20	ACIOI		·
		GREAT SPANGLED FRIT	ILLARY	
		Heath. Determine	1;2	DP;DHS
JUN	22	Heath; Petersham	1;1	TD;DP
	23	Hopedale; Rowe Milford	5	LL
	24 26	Tolland	1	TF
		BMBS	27	BM
OOT	. 4	Prescott	93	DHS
	10 22	Savoy; Florida	50;10	DP
	30	BMBS	12	TD
7 770		_	20	DP
AUG	1 1-10	Peru Cape Ann max on several dates		DS,CT
Carne		Westford; Northfield	5;1	JB;DP
SEL	10 11	Milford	8	RH
		BMBS	3 .	TD
	17	Wenham; Deerfield	. 1;1	JB;DP
	18		1	BC,SJC
	28-29	LOXDOTO	-	20,200

APHRODITE FRITILLARY

JUN	26	Westfield	1	JC
JUL	2	Sherborn	1	RH
	10	Prescott	5	DHS
	22	Savoy, Florida	30,8	DP
AUG	1	Peru	10	DP
	27	Athol	7	DHS
	30	Hamilton; Sudbury	1;1	JB;TD
SEP	8	Athol, Prescott	1,2	DHS
	10	Heath	1	DP
	11	Milford	2	
	11	MILLORG	2	RH
		ATLANTIS FRIT	TILLARY	
JUN	22	Mt.Greylock	1	TD
	23	Rowe	1	DP
	26	Tolland	1	TF
JUL	2	Windsor	12	JC
501	4	Heath	12	
				DP
	5	October Mt.	20+	PW
	22	Florida, Savoy	8,25	DP
	26	Monroe	4	DP
AUG	1	Peru	5	DP
	3	Savoy	3	DP
SED	12*	Heath	1	DP
CHL	+ L	neach	<u>.</u>	DF
·				
		ATTIME DADDENIE		
		SILVER-BORDERED 1	FRITILLARY	
YAM		SILVER-BORDERED 1	1	TD
MAY	24 30			TD BC & co.
MAY JUN	30	Sudbury	1	
	30 4	Sudbury Easton Milford	1 3 1	BC & co. RH
	30 4 11	Sudbury Easton Milford Grafton	1 3 1 4	BC & co. RH LL & co.
JUN	30 4 11 12	Sudbury Easton Milford Grafton Sudbury	1 3 1 4 3	BC & co. RH LL & co. RF
	30 4 11 12 4	Sudbury Easton Milford Grafton Sudbury Heath	1 3 1 4 3 7	BC & co. RH LL & co. RF DP
JUN	30 4 11 12 4 21	Sudbury Easton Milford Grafton Sudbury Heath Orange	1 3 1 4 3 7 5	BC & co. RH LL & co. RF
JUN	30 4 11 12 4	Sudbury Easton Milford Grafton Sudbury Heath	1 3 1 4 3 7	BC & co. RH LL & co. RF DP
JUN	30 4 11 12 4 21 24	Sudbury Easton Milford Grafton Sudbury Heath Orange	1 3 1 4 3 7 5	BC & co. RH LL & co. RF DP DHS
JUL	30 4 11 12 4 21 24 8	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford	1 3 1 4 3 7 5	BC & co. RH LL & co. RF DP DHS RH PW
JUN JUL AUG SEP	30 4 11 12 4 21 24 8 11	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford	1 3 1 4 3 7 5 7 5 3	BC & CO. RH LL & CO. RF DP DHS RH PW RH
JUN JUL	30 4 11 12 4 21 24 8 11	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt.	1 3 1 4 3 7 5 7	BC & co. RH LL & co. RF DP DHS RH PW
JUN JUL AUG SEP	30 4 11 12 4 21 24 8 11	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury	1 3 1 4 3 7 5 7 5 3 1	BC & CO. RH LL & CO. RF DP DHS RH PW RH
JUN JUL AUG SEP	30 4 11 12 4 21 24 8 11	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford	1 3 1 4 3 7 5 7 5 3 1	BC & CO. RH LL & CO. RF DP DHS RH PW RH
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT	1 3 1 4 3 7 5 7 5 3 1	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT	1 3 1 4 3 7 5 7 5 3 1	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT	1 3 1 4 3 7 5 7 5 3 1	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT Heath Williamstown Conway	1 3 1 4 3 7 5 7 5 3 1 TLLARY	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT Heath Williamstown Conway Colrain; Heath	1 3 1 4 3 7 5 7 5 3 1 TLLARY	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT Heath Williamstown Conway	1 3 1 4 3 7 5 7 5 3 1 TLLARY	BC & CO. RH LL & CO. RF DP DHS RH PW RH TD
JUN JUL AUG SEP SEP	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT Heath Williamstown Conway Colrain; Heath Prescott	1 3 1 4 3 7 5 7 5 3 1 TLLARY	BC & co. RH LL & co. RF DP DHS RH PW RH TD DP PW DP JBo;DP
JUN JUL AUG SEP SEP JUN JUL	30 4 11 12 4 21 24 8 11 30	Sudbury Easton Milford Grafton Sudbury Heath Orange Milford October Mt. Milford Sudbury MEADOW FRITT Heath Williamstown Conway Colrain; Heath	1 3 1 4 3 7 5 7 5 3 1 TLLARY	BC & co. RH LL & co. RF DP DHS RH PW RH TD DP DHS

HARRIS' CHECKERSPOT

JUN 8,16	Westford	1,6	JC
11	Easton; Milford; West Boylston	60;48;6	BC;RH;TD
	Holden	23	TD
17	Phillipston; Prescott Pen.	2;20	DHS;JBo
18	Holden	65	TD
26	BMBS	8	TD
JUL 2	Easton	1	BC
	•		
	PEARL CRESCENT	1	
	FIERRI CRESCENI	-	
MAY 22	Granby; Dana	1	TF;DHS
24	Sudbury	6	TD
28	Lincoln	2	RW
JUN 3	Montaque	1	MF
3-20	Cape Ann max on 6/11	= 4	DS,CT
5	Northbridge	64	RH
12	Sudbury	15	RF
JUL 23	Northbridge	345	RH
29	Prescott, Orange	40,43	DHS
30	Easton	160	BC
AUG 20	Athol	2	DHS
SEP 28	Deerfield	12	DP
OCT 7	Rowe; Sudbury	1;2	DP;TD
8	Deerfield	4	DP
15	Holliston	1	RH
22*	Martha's Vineyard	1	AK
	BALTIMORE CHECKER	SPOT	
JUL 2	Sherborn; Easton	1;26	RH;BC
9-17	Gill	1	DHS
	•		
	QUESTION MARK		
MAY 26	Brockton	2	KR
29	Norfolk	1	CA
30	Spencer; Martha's Vineyard	4;1	TD;AK
JUN 4-30	Middlesex Fells max on 6/27	•	BM
JUN 5-30	Cape Ann total # of records :		DS,CT
JUL 11	Boston Common	2	RF
12	Stowe	2-3	JC
22	Savoy	5	DP
23	Monroe	3	DP
AUG 4	George's Island	6	BC
20	Plum Island	4	RF
SEP 15	Hubbardston	2	DHS

OCT 1	Plum Island	3	RF
9	Truro	1	JC
10	Newburyport	1	JC
NOV 13*	Concord	1	RW
	EASTERN COMMA		
MAR 23**	Easton	1	KR
APR 4	BMBS	1	TD
15	Acton	1	JC
17	Wellesley	1	RF
MAY 7	Willamstown	1	PW
30	Martha's Vineyard	2	AK
JUN 8,13	Deerfield	5,3	DP
JUL 2	Conway	7	DHS
18	Harvard	3	JC
SEP 15	Rowe; Bolton Flats	4;3	DP;RH
18	Deerfield	3	DP .
OCT 19	Wellesley	1	RF
NOV 4	Rowe	1	DP
5	Heath	1	DP
DEC 4*	Foxboro	1	BC
	COMPTON TORTOISESH	ELL	
MAR 23	Sudbury	1	RW
24	Foxboro	1	SJC
APR 1	Newton	1	RH
5	Foxboro	1	MC
11	Belmont	1	AMC,JS
23	Holliston	1	RH
MAY 4	Newton; Harvard	2;1	RH;SB
11	Wellesley	1	RF
JUL 2	Hopedale	1	TD
19	Heath	1	DP
SEP 15	Rowe	1	DP
٠	MOURNING CLOAK	₹	
MAR 16	Cape Ann	1	DS,CT
23	Milford; Sudbury	1;1	LL;RW
24	Foxboro	1	SJC
31	Williamstown	1	PW
APR 8,9	Martha's Vineyard	2,1	AK
9	Boxford	3	JB
· 11	Belmont	3	AMC; JS
24	Boxford	5	JC
MAY 4	Harvard	2	SB
JUN 23	Rowe	3	DP

JUL AUG SEP	10-29 17 9 10	North Monomoy Is.; Brookfield Plum Island	x on 6 dates =	2 2 1;1 1 1;1 1	DP DP JS DS,CT JS RH TD DP
NOV	28 22	Rowe Wellesley		1	RF
		MILBE	RT'S TORTOISESE	IELL	
AUG	3	Savoy		1	DP
	24	Windsor		1	MF
OCT	18	Princeton[???]		1	BV
			RED ADMIRAL		
APR	8**;9	Gay Head, MV		1;3	AK;VL
APR	9	Westport		3	SB
	15	Wellesley		1	RF
	19	Middleboro		3	RF
MAY		Mt.Greylock		1	PW
JUN	8	Hopedale		1	TD
0 021	16	South Hadley		1	TF
	23	Lexington		2	JC
	26	Cape Ann		6	DS;CT
JUL	3	West Yarmouth		4	RF
0.077	24	Northbridge		12	RH
AUG		-	,	1	HP
		Brewster		2.	SA
OCT	1 2	Lynn		13	DS;CT
		Cape Ann		2	TD TD
	10	Plum Island		1	AK
	14	Martha's Vineyard		1	AK
			AMERICAN LADY		
APR	15**	Woods Hole		1	RH
	17	North Scituate		1	WP
	30	Rowley		1	JC
MAY	1-31	Cape Ann	\max on $5/9 =$	20	DS,CT
JUL		Foxboro		10	BC
	10	Prescott	•	28	DHS
	17	Milford		10	RH
AUG	1	Plainfield		5	DP
	20	Athol		. 7	DHS
SEP	1-30	Cape Ann	max on 9/11 =		DS,CT
	3	Squibnocket,MV		5+	AK
	18	Chatham		7	RF

OCT	1-23	Cape Ann max on 10/2 =	23	DS,CT		
NOA	б	Hanson	1	SA		
	14	South Monomoy Island	1	JS		
	26*	Martha's Vineyard	1	AK		
		•				
		PAINTED LADY				
		•				
MAY	15	Petersham	1	JBa		
	21	Hull	3	BC,LL		
	23	Lynn	1	BC		
	28	Acton	1	EW		
	30	Wellesley	1	RF		
JUN	2	Wellfleet	1	RF		
	14	Heath	1	DP		
JUL	2	Conway	1	DHS		
	10	Athol	2	DHS		
	16	Newton	1	RH		
	29	Orange	1	DHS		
OCT	29	Plum Island	1	RF		
NOV	13*	South Dartmouth	1	SA		
		COMMON BUCKEYE]			
JUN	18	Rockport	1	DS,CT		
	23	Hopedale	1	TD		
	25.	North Scituate [stuck to newly-	- 1	EP		
		tarred roadway				
JUL	2	Windsor	2	DHS		
	9	West Bridgewater	2	WP & co.		
	17,24	Milford	1,1	RH		
AUG		Cape Ann	1	DS,CT		
	20-28	Wachusett Resevoir	5-6	TD		
	27	Newburyport	3	BM		
SEP	3	Westport; South Dartmouth	3;3	BC		
SEP	8,14	Eastern Pt., Gloucester	1,2	DS,CT		
	11,17	Milford	1,1	RH		
	17	Martha's Vineyard	4	AK		
OCT	10	Plum Island	2	TD		
	24	Squibnocket, MV	7+	AK		
	[nume	rous August and September records	s from	outer Cape		
	Cod - mostly singletons - JS;TH;RW;HP]					

RED-SPOTTED PURPLE [unbanded form; aka Red-Spotted Purple]

JUN	4	Middlesex Fells; Hopedale	2;1	BM, EH; TD
	. 8	Framingham	1	RF
	10	South Hadley	1	TF
	11	Middlesex Fells	5	BM & co.

			10	DITC
	15	Petersham	15	DHS
	18	Heath	11	DP
	23	Rowe	23	DP
	13,	Hingham	3	BC
	29	Orange	9	DHS
AUG	1	Peru	22	DP
	3	Savoy, Rowe	33,17	DP
	10	Ashfield	10	DΡ
	17	Brewster	1	HP
SEP	1	Wellfleet	1	JS
	15	Rowe	2	DP
		[banded form; aka White	Admiral	.]
JUN	13	New Ashford; Sudbury	1:1	PW;TD
0 024	15	Petersham	3	DHS
	22	Mt.Greylock	6	TD
	23	Rowe	23	DP
JUL		Wayland; Orange	1;4	RF;DHS
AUG	1	Peru	-, - 5	DP
AUG	3	Savoy	9	DΡ
AUG	6	Heath	17	DP
SEP	-	Rowe	2	DP
one [dat		Wellfleet	1	TH
Luac	.e.1	METITIEEC	-	
		VICEROY		
JUN	5	Groveland	3	JВ
,0 02.	9-30	Cape Ann max on 6/18 =	3	DS,CT
	10	Prescott	5	DHS
	11	Milford	4	RH
JUL		Orange; Rowe	8;4	DHS;DP
	30	BMBS	11	TD
AUG	3	Savov	12	DP
	6	Windsor	7	DHS
	17	Brewster	3	HP
	20	Northbridge; Athol	7;5	RH; DHS
SEP		Wenham; Uxbridge	1;2	JB;RH
	21	Heath	3	DP
	30*	Sudbury	1	TD
		HACKBERRY EMPER	OR	
JUL	16	Ashley Falls	1	ED

NORTHERN PEARLY EYE

JUN 27	Middlesex Fells	1	BM	
JUL 1	Heath	1	DP	
3-19	Prescott	1 ,	DHS	
4	BMBS	1	BM	
9	BMBS	2	AMC	
18	Williamstown	2	PW	
22	Savoy	2	DP	
AUG 2	Norfolk	1	BC	
SEP 12	Wellesley	1.	RF	
***** 22**	EYED BROWN	1	me	
JUN 22**	Granby	1	TF	
JUL 1	Braintree 7/12	1	BC	
3-19	Prescott max on 7/10 =		DHS	
3	Windsor	1	MF	
4	BMBS; Milford	2;1	BM;RH	
9	Wrentham	19	BC	
10	Cape Ann	1	DS,CT	
24	Milford	2	RH	
AUG 8-15	Cape Ann max on 3 dates =	1	DS,CT	
	APPALACHIAN BRO	NWC		
JUN 26	Wellesley	1	RF	
29	Braintree	1	BC	
JUL 2	Middlesex Fells	2	BM	
3	Granby	1	TF	٠
10	Prescott	1	DHS	
21	Heath	1	DP	
30	BMBS	3	TD	
AUG 7	Easton	1	BC	
	LITTLE WOOD SAT	YR		
MAY 26	Wesllesley	1 .	RF	
27	Sudbury	1	TD	
28	Lincoln; Foxboro	1	RW;BC &	co.
29	Foxboro; South Hadley	10;1	BC;TF	
30	Williamstown	1	PW	
JUN 4	Middlesex Fells	35	BM, EH	
5	Northbridge	17	RH	
7	Russell	1	DHS	
11	West Boylston; Holden	10;31	TD	
JUL 1-21	Cape Ann \max on $7/7 =$	15	DS,CT	
16	Squibnocket, MV	2+	AK	
23	Northbridge	1	RH -	
30	BMBS	1	TD	

COMMON RINGLET

MAY 29	Framingham; South Hadley	8;1	RF,RW;TF
30	Wellesley; Concord	13;4	RF;RW
31	Martha's Vineyard	2	AK
JUN 3-3	0 Cape Ann max on 6/8	3 = 65	DS,CT
4	Middlesex Fells	24	BM
6	Prescott	50	DHS
18	Lincoln	80	BM,PB
22	Mt.Greylock	50	TD
JUL 2	Windsor	50	DHS
29	Prescott	3	DHS
AUG 9	World's End Res., Hingham	150	BC & co.
21	Wenham	22	JB
SEP 8	Cape Ann	2	DS,CT
15	Bolton Flats	1	RH
20	Heath	30	DP
OCT 4*	Sudbury	1	TD
	•		
	COMMON WOOD N	TYMPH	
1	Wildered	1	RH
JUL 1	Milford	6,4;	
2	Foxboro, Easton; Hopedale	120	BC & co.
11	World's End Res., Hingham	25	DS,CT
31	Cape Ann	80+	•
AUG 20	Rowley		JB
27	Newburyport; Cape Ann; Heath		
SEP 10	BMBS	1	TD
11	Milford; Holliston	1;1	RH
20	Heath	1	DP
	MONARCH		
100 1644	. Dombon	1	RS & co.
APR 16**		1	RS,JC, & co.
17	Westport	1	EJ,RR
27	Gloucester	2	fide T.Tyning
MAY 2	South Hadley	1	JC
7	Plum Island	1	DG
17	Naushon Island	100	
JUL 22	Savoy		DP ·
25	Ipswich [@ porch lights @ 11		JB BC & co.
AUG 17	Lovell's Island	12	DC & CO.
SEP 1-3		2000	DS,CT
oom 1	max on 9/13 =	2000 289;25	
OCT 1	Dartmouth; Plum Island	52 52	DP
7	Rowe	113	TD
10	Plum Island	= 1000	DS,CT
1-3		= 1000 250+	
14	Chappaquidick,MV	23UT	AK

NOV	3	Deerfield, Turners Falls; Wellfleet	2,2;1	DP;JS
	5	Heath; Salisbury, Plum Island; South Natick	1;1,1;	1 DP;RF;RH
	13	South Dartmouth, Westport;		
		Katama, MV	2,2;3	SA;AK
	19	Tashmoo, MV	1	AB
DEC	4*	Nahant; Falmouth	1;1	SZ;GM
		SILVER-SPOTTED SKI	PPER	
MAY	29	Framingham; South Hadley	1;1	RW,RF;TF
JUN	5	BMBS	2	TD
JUL	2	1030010	L1	BC
	3-31	-		DS,CT
	4		24;30	BM; TD
	9	2011101 02 0012	11	DP
	17	•	10;17	BC & co.; DHS
	23	Northbridge; Wachusett Res.	13;15	RH;TD
AUG	17	Brewster	1	HP
	21	Wenham	2	JB
		LONG-TAILED SKIP	PER	
		2010		
SEP	10	Foxboro	1	BC & co.
	12*	South Hadley	1 .	TF
		HOARY EDGE		
JUN	11	Milford	2	RH
	16	Sudbury	1	TD
	18	Grafton; Charlton	1;5	TD;RH
	23-26	Hopedale	1	TD
	23-30		5	TD
JUL	4	BMBS	3	BM
	5	Blue Hills Reservation	1	BC & co.
		SOUTHERN CLOUDYW	ING	
JUN	17	South Hadley	1	TF
	18	Charlton	1	RH
JUL	2	Conway; BMBS	1;1	DHS;TD
	4	Wachusett Resevoir	1	TD
		NORTHERN CLOUDY	VING	
				DE 1013
MAY		Framingham	1	RW,RF
	30	Concord; Cape Ann	3;1	RW;DS,CT
MUL	5	BMBS	9	TD

	9-11	Middlesex Fells	6	BM
	10	Williamstown	1	PW
	11	Milford	6	RH
	18	Grafton	8	TD
	19	Middlesex Fells	· 9	BM
JUL	1-19	Heath max on 7/1	= 3	DP
	2	Windsor	1	JC
	4	Wachusett Resevoir	1	TD
		5 4		
		DREAMY DUSKYW	ING	
MAY	12	Miles Standish S.F.	1	RW;RF
	14	Westboro	2	JC
	29	Framingham	12	RW;RF
	30	Adams	2-3	MF
JUN	1-19	Cape Ann \max on $6/6 =$	5	DS,CT
	5	Framingham; Northbridge	8;5	RF;RH
	5-26	BMBS $\max \text{ on } 6/5 =$	4	TD
	18	Lincoln	1.	BM, PB
		SLEEPY DUSKYW	ING	
MAY	12-26	Miles Standish S.F.	4-6	DD,RF,RW
	24	Franklin	1	LL
	30	Martha's Vineyard	1	AK
JUN	11	Milford	1	RH
		juvenal's dusky	WING	
MAY	3	Wellesley	1	RF
	7-30	Cape Ann $max on 5/15 =$	24	DS,CT
	10	Deerfield	1	DP
	12	Miles Standish S.F.	24	RF,RW
	15	BMBS; Middlesex Fells	13;10	TD;BC & co.
	24	Franklin	9	LL
	28	Foxboro	8	BC & co.
	28,29	Martha's Vineyard	2,1	AK
JUN	1-19	Cape Ann $\max \text{ on } 6/1 =$	7 -	DS,CT
	18	Charlton	1	RH
	22	Mt.Greylock	3 .	TD
		HORACE'S DUSKY	WING	
JUL	17,24	Milford	1,3	RH ,
		WILD INDIGO DUSK	YWING	
MAY	15	Middlesex Fells	3	BC & co.
	21	Deerfield	1	MF,DP

			_	
	29	Framingham	7	RW,RF
JUN		BMBS; Framingham	3;3	TD;RF
JUL		Marshfield	6	BC
	18	Wellesley	5	RF
	23	Northbridge	5	RH
	28	Blue Hills Reservation	4	BC
AUG	7	BMBS	4	TD
SEP	29*	Wellesley	2	RF
		COMMON SOOTY	WING	
MAY	30	Wellesley	1	RF
JUN	5	Williamstown	1	PW
	10	Cape Ann	1	DS,CT
	13	Deerfield	3	DP
	19,22	Middlesex Fells	1,1	BM
JUL	17	Gill	1	DHS
	23	Foxboro; Uxbridge	1;3	MC;RH
AUG	26	Sudbury	1	RF
SEP	3*	BMBS	2	TD
		ARCTIC SKIP	PER	
MAY	28,30	Concord	1;2	RW
JUN	12	Sudbury	2	RF
•		_		
		LEAST SKIP	PER	
JUN	11			BC & co.;RH
JUN	11 18	LEAST SKIPS Easton; Milford Charlton	PER 2;5 2	BC & co.;RH
JUN	18	Easton; Milford Charlton	2;5	
	18 29	Easton; Milford Charlton Northampton	2 ; 5 2	RH
JUL	18 29	Easton; Milford Charlton	2;5 2 1	RH TF
JUL	18 29 6 7	Easton; Milford Charlton Northampton Topsfield Athol	2;5 2 1 2	RH TF JB
JUL	18 29 6 7 17	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island	2;5 2 1 2 5	RH TF JB DHS BC
JUL AUG	18 29 6 7 17 30	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann	2;5 2 1 2 5	RH TF JB DHS
JUL	18 29 6 7 17 30	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham	2;5 2 1 2 5 2 2	RH TF JB DHS BC DS,CT
JUL AUG	18 29 6 7 17 30 17 20	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro	2;5 2 1 2 5 2 2 2 40	RH TF JB DHS BC DS,CT RF JS
JUL AUG SEP	18 29 6 7 17 30 17 20 28	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield	2;5 2 1 2 5 2 2 40 2+ 7	RH TF JB DHS BC DS,CT RF JS DP
JUL AUG	18 29 6 7 17 30 17 20 28	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro	2;5 2 1 2 5 2 2 40 2+ 7	RH TF JB DHS BC DS,CT RF JS
JUL AUG SEP	18 29 6 7 17 30 17 20 28	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16	2;5 2 1 2 5 2 40 2+ 7 = 4	RH TF JB DHS BC DS,CT RF JS DP
JUL AUG SEP	18 29 6 7 17 30 17 20 28	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield	2;5 2 1 2 5 2 40 2+ 7 = 4	RH TF JB DHS BC DS,CT RF JS DP
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16*	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI	2;5 2 1 2 5 2 40 2+ 7 = 4	RH TF JB DHS BC DS,CT RF JS DP DS,CT
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16*	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI	2;5 2 1 2 5 2 40 2+ 7 = 4 PPER	RH TF JB DHS BC DS,CT RF JS DP DS,CT
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16*	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1	2;5 2 1 2 5 2 40 2+ 7 = 4 PPER 4 000+	RH TF JB DHS BC DS,CT RF JS DP DS,CT
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton	2;5 2 1 2 5 2 2 40 2+ 7 = 4 PPER 4 000+ 850+;200	RH TF JB DHS BC DS,CT RF JS DP DS,CT
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18 22	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton Middlesex Fells	2;5 2 1 2 5 2 2 40 2+ 7 = 4 PPER 4 000+ 850+;200 330	RH TF JB DHS BC DS,CT RF JS DP DS,CT BM,EH DS,CT BM,PB;TD BM
JUL AUG SEP OCT	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18 22 23	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton Middlesex Fells Hopedale	2;5 2 1 2 5 2 40 2+ 7 = 4 PPER 4 000+ 850+;200 330 250	RH TF JB DHS BC DS,CT RF JS DP DS,CT BM,EH DS,CT BM,PB;TD BM TD
JUL AUG SEP	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18 22 23 1-12	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton Middlesex Fells Hopedale Cape Ann max on 6/1,4 = 1	2;5 2 1 2 5 2 2 40 2+ 7 = 4 PPER 4 000+ 850+;200 330 250 000+	RH TF JB DHS BC DS,CT RF JS DP DS,CT BM,EH DS,CT BM,PB;TD BM TD DS,CT
JUL AUG SEP OCT	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18 22 23 1-12 2	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton Middlesex Fells Hopedale Cape Ann max on 6/1,4 = 1 Windsor; Foxboro	2;5 2 1 2 5 2 2 40 2+ 7 = 4 PPER 4 000+ 850+;200 330 250 000+ 300;350	RH TF JB DHS BC DS,CT RF JS DP DS,CT BM,EH DS,CT BM,PB;TD BM TD DS,CT DHS;BC
JUL AUG SEP OCT	18 29 6 7 17 30 17 20 28 7-16* 4 14-30 18 22 23 1-12	Easton; Milford Charlton Northampton Topsfield Athol Lovell's Island Cape Ann Eastham Truro Deerfield Gloucester max on 10/16 EUROPEAN SKI Middlesex Fells Cape Ann max on 6/26,29 = 1 Lincoln; Grafton Middlesex Fells Hopedale Cape Ann max on 6/1,4 = 1	2;5 2 1 2 5 2 2 40 2+ 7 = 4 PPER 4 000+ 850+;200 330 250 000+	RH TF JB DHS BC DS,CT RF JS DP DS,CT BM,EH DS,CT BM,PB;TD BM TD DS,CT

LEONARD'S SKIPPER

AUG	13	Holden	1	TD
	21-27	Wachusett Resevoir	1	TD
	23	Heath	1	DP
	25	Sudbury	1	TD
	27	Charlton	1	RH
	27-29	Athol	2	MP, DHS
	28	Sherborn; Montaque	2;1	RH;MF
SEF		BMBS max on 9/3	•	TD
011	11	Milford	1	RH
	12	Wellfleet Bay WLS	6	JS
	13	Truro	3	JS
	18	Chatham	1	RF
	21	Cape Ann	1	DS,CT
OCI		Truro, Wellfleet Bay WLS	1,2-3	JS
001	. 5	itato, metitiess sa, mas	-,	
		COBWEB SKIPE	ER	
MAV	13-23	Turners Falls max on 5/23	= 8	MF
7.157.1	15	Middlesex Fells	20+	BC & co.
	15-31	BMBS max on $5/15 =$	11	TD
	23	Miles Standish S.F.	1	RW,RF,DD
	28	Foxboro	20	BC & co.
ναм	7 29	Sudbury	10	RF,RW
JUN		Middlesex Fells	3	BM, EH
001	· 5*	Sudbury; Northbridge; BMBS	12;1;1	RF;RH;TD
		INDIAN SKIPI	PER	
MA	7 28	Foxboro	6	BC & co.
JUL	N 4-22	Mid'sex Fells max on 6/4,11	= 7	BM & co.
	5	Northbridge	1	RH
	11	West Bridgewater	3	BC & co.
		PECK'S SKIP	PER	
MA	Y 28	South Hadley	1	TF
	29	Framingham	3	RF,RW
	31	Sudbury	1	TD
់ វបា	N 1-26	Cape Ann \max on $6/5,15 =$	2	DS,CT
	11	Milford	21	RH
	23	BMBS	17	TD
JU	ւ 2	Easton	3	BC
	22,28	Wellesley	2,10	RF
	30	Easton	12	BC
AU	G 1	Peru; Sudbury	35;20	DP;TD
	7	Athol	10	DHS
SE	P 28	Sudbury	1 .	TD
-				

30 OCT 8*	Wellesley Milford	1 1	RF RH
	TA	AWNY-EDGED SKIPPER	,
JUN 11 12 22	Easton Sudbury Petersham	3 3 1.	BC & co. RF DHS
JUL 2 4 30	BMBS; Middlesex F BMBS Easton		TD;BM BM BC
AUG 1	Holland Easton	2	LL BC
	C	CROSSLINE SKIPPER	
JUL 1 2 17 19 24	Sudbury Sherborn Middlesex Fells Heath Milford	1 1 1 1 6	TD RH BC & co. DP RH
		LONG DASH	
MAY 22 JUN 8-1 11	Granby 6 Westford West Boylston, Ho	1 20 Iden•	TF JC
13–3 30	West Bridgewater,		2,2 TD;BC DS,CT DP
JUL 2 10	BMBS; Easton Prescott	1;2 8	TD;BC DHS
	NOI	rthern broken dash	
JUN 26** JUL 4 10 17 21 29	BMBS Prescott Milford New Salem Heath	3 4 5 1 4 1	DP BM DHS RH DHS DP
AUG 7 15	Athol Braintree	2 1 JITTLE GLASSYWING	DHS DP
מר זאנדר			DE
JUN 29 JUL 1	Wellesley Milford	1 1	RF RH

		•		
	2	BMBS	2	TD
	3,10	Prescott	1,1	DHS
	4,10	Cape Ann	2,2	DS,CT
	5	Deerfield	1	DP
	17	Middlesex Fells	2	BC & co.
	23	Northbridge	4	RH
		DELAWARE SKI	(PPER	
JUL	2	Foxboro	1	BC
	3	Granby	1	\mathbf{TF}
	4	BMBS; Milford; Wachusett Res	. 3;4;2	BM;RH;TD
	10	Prescott	57	DHS
	11	Cape Ann	2	DS,CT
	20,28	New Salem	5,2	DHS
		MULBERRY W	ING	
JUL	4**	Milford	1	RH
	10-27	Cape Ann max on 7/10	= 15	DS,CT
	24	Milford	5	RH
AUG	10	Cape Ann	4	DS,CT
		HOBOMOK SKI	PPER	
) / 3 TT	٥٣	***-111	. 4	777
MAY		Wellesley	1	RF
	27	Sudbury	1	TD
JUN	4	Milford	2	RH
JUN	5	Williamstown	1	PW
	5,26		16,5	TD
		Middlesex Fells	6,12	BM
	23	Lexington	4	JC
JUL	3	Cape Ann	1	DS,CT
		BROAD-WINGED S	SKIPPER	
			_	
JUL		Northbridge	1	RH
	30	BMBS	10	TD
AUG	27	Heath	1	DP
		DION SKIPP	PER	
EARI	LY JUL	Sheffield 30+	in one ho	our DWa

BLACK DASH

JUL AUG	2 4 12,27 1 10	Holliston Milford Cape Ann Holland Cape Ann	1 3 2, 3	RH RH 11 DS,CT LL DS,CT
			DUN SKIPPER	
JUL	2 3 10	Sherborn Granby Prescott	1 1 44	RH TF DHS
	17 23	Middlesex Fells Northbridge	3 6	BC & co.
	14 20 28	BMBS Ipswich Foxboro	1 1 1	TD JB BC
			DUSTED SKIPPER	
MAY	25 30	Sudbury Concord	1 2	TD RW
	4-19		1.3 max on $6/4 = 6$	1 RH BM
JUL	18 4	Grafton BMBS	2 1	TD BM
		PEPPI	er and salt skip	PER
		Concord BMBS Quabbin [Gate 45] Sudbury	1 7 2 2	RW TD JC RF
		R	OADSIDE SKIPPER	
MUL	5	Northbridge Northfield	4 1	RH MF
		**	OCOLA SKIPPER**	
SEP :	28	Wellesley	1	RF

JUST HOW MANY RARITIES ARE OUT THERE?

by Brian Cassie

In the last issue of "Massachusetts Butterflies", I wrote that our butterfly garden had not attracted <u>any</u> new butterfly species in 1994, let alone a rare butterfly. Of course, like Linus Van Pelt, who felt that his sincerest of all pumpkin patches must surely merit a visit from the Great Pumpkin, I secretly hoped that our little patch of buddleias was worthy of a distinguished visitor of its own. Now Linus, bless his heart, is still waiting for the Great Pumpkin (and I don't say it is fair) but my own wish was fulfilled while some of those issues of "Massachusetts Butterflies" NO.4 were still in the mail to you readers.

Checking the butterfly garden is a good excuse to get down off the ladder, put down the paintbrush, and have a good stretch. One of those stretches on September 10 found me eye-to-eye with a stunning Long-tailed Skipper, which flew in under my nose while I was examining a Monarch, which, in turn, was examining the butterfly bushes. Quite naturally, a lot of commotion ensued, phone calls and cameras and the like. A few MBC members got to share in the excitement. An hour later and the skipper was gone, flown on to another butterfly garden perhaps.

Long-tailed Skippers are abundant at times in the South. They were the most common butterfly, by far, when my family and I visited all those Orlando attractions in November. If summer populations in the Southeast explode, as they apparently did in 1994, a wave or two of emigrants spreads north and if conditions are right, a small number may reach as far north as New England in early fall. The first two Massachusetts records were in September 1990, one in Marshfield, the other in South Hadley, at zinnias in Tim Fowler's garden. It was quite a shock, back in 1990, discovering a Long-tailed Skipper at the zinnias. Imagine how Tim felt this past September when the second one showed up, again at his zinnias! This kind of thing can start a person to thinking. Just how many rare butterflies are flying around in Massachusetts during the course of a season, and how many are going completely unnoticed? If three of the four known records for Long-tailed Skipper in Massachusetts have come from the flower gardens of two MBC members, how many others were visiting other gardens? One of my entomological heroes, Frank Lutz, was thinking the same thing when he pondered the presence of a South American bee in his urban garden in the 1930's:

"Thinking it over gives one a curious feeling. Suppose we say that suburban New York is a circle thirty miles in radius. That is 2800 and some square miles, but, since a large part of it is water, let us say about 2500 square miles of land, roughly seventy billion square feet. Our yard is approximately one five-millionth of this area. If a bee comes to the vicinity of New York City, the chance of its visiting any given yard such as ours, or even a given group of yards, is very small. Furthermore, none of us is watching his flower beds much of the time, so that the chance that he would see the bee if it did come is also small. And, to mention just one more element in the chain of chances, the probability that the person who saw the bee was one who happened to have studied recently that particular one of the hundreds of groups of insects and who would recognize the visitor as unusual is nearly as small as our yard. The

conclusion of the whole matter is a question: How many foreign insects are there flying about us every season quite unrecognized?"

How many, indeed! Perhaps when we have as many butterfly watchers as bird watchers we will be better able to address the question.

TITHONIA IN A NEWTON GARDEN by Marilyn Murphy

Several years ago, my husband and I reconstructed our side yard in Newton. After the removal of several large old shade trees, I planted some sun-loving perennials and annuals and immediately witnessed the arrival of butterflies I had never seen there before. Since then, I have experimented with several butterfly-attracting plants with varying degrees of success.

In 1994, I planted the annual Tithonia, also called "Mexican Sunflower" or "Golden Flower of the Incas," a daisy native to Mexico and Central America and a member of the family Compositae. The variety I planted is "Sundance." Tithonia is recommended by Jerry Sedenko in his The Butterfly Garden (New York: Running Heads Inc., 1991): "The flowers," says Sedenko,"attract a constant cloud of hovering butterflies from late summer through fall." Patricia Sutton also recommends Tithonia in her article "How to Create a Butterfly and Hummingbird Garden" (Peregrine Observer, Volume 13, Numbers 1 and 2, 1990) in which she writes: "The core of my butterfly and hummingbird garden is a large corridor of scarlet sage...with...sizable patches of bee balm, butterfly weed, common milkweed, Mexican sunflower and a half dozen butterfly bushes."

My Tithonia never had a constant cloud around the blossoms but it did attract a steady stream of Monarchs for all of its blooming period. As many as five Monarchs were present at one time on my ten Tithonia plants during the fall migration and the last butterfly in my garden in 1994 was a single Monarch on a Tithonia on October 31. Red Admirals were the only other butterflies I noticed on its flowers.

The one disadvantage to my Tithonia is that it did not start flowering until the first week of September and was not in full bloom until September 15. One gardening source states that Tithonia needs three to four months from sowing to flower production. I can only gather from my limited experience that the maximum time is needed if it is grown hereabouts. My plants bloomed after three and a half months. Perhaps the Boston area is near Tithonia's northern limit for effective flower production.

Although slow to bloom, Tithonia is an easy plant to grow, seeds germinated quickly on my kitchen windowsill and once the seedlings were established outside, they seemed virtually care-free. Pests did not appear to bother them and they did not need staking. Tithonia is drought-tolerant.

Two all-important Tithonia requirements are full sun and plenty of space; it is multibranching and plants should be spaced about two feet apart. Because Tithonia reaches four to six feet in height and because plants are hollow-stemmed, they should be planted near the back of the border away from traffic areas where the stems can be brushed against causing the flowers to droop. The three inch wide daisy-like flowers have orange petals and yellow disks and ideally would stand out best against a dark evergreen background such as yew, though mine looked fine against an ordinary garden fence. It is an added bonus if the plants reach Halloween without a killing frost.

Rarely have I seen Tithonia growing in this area, though in my fall sparrow hunts I have occasionally found a few plants in local community gardens where a gardener has interplanted them with some of the more unusual sunflowers. Community gardens must offer the best of all possible worlds for Tithonia: hot, often sheltered locations, plenty of room for growing, benign neglect of the gardener, and for Monarchs, easy spotting of what must be one of their favorite plants. Whenever Tithonia is found in a community garden or elsewhere, Monarchs will be there, too, I am sure.

I may be overly optimistic but am hopeful that last year's Tithonia will self-seed in 1995; also, I have a small collection of seed from 1994 plants. This is such an agreeable, undemanding plant and so attractive to Monarchs that it would be a pleasure to see it more widely grown. If anyone is interested in trying either seedling (if they materialize) or seed please write to me giving your name, address, and phone number at 114 Temple St., West Newton, MA 02165 and I will contact you later in the season.

OCOLA SKIPPER IN MASSACHUSETTS by Richard Forster

Almost continuous cloudy weather characterized the latter part of September 1994 in the Wellesley area. Insects had seemed relatively inactive for the better part of a week. The morning of September 28 dawned cloudy with the promise of clearing by noon. I decided that if the sun shone as promised I would venture forth to see which insect species were still active at this approaching end of the flight season. The skies did indeed clear on schedule and shortly after noon I set out.

The first stop on my entomological excursion was the edge of a pond bordering Brookside Road, along the twelfth fairway of the Wellesley Country Club. I was primarily interested in looking for dragonflies and damsel flies, and, as expected, I did find a few species of damsel flies around the pond. I also noticed a smattering of butterflies, including a late-flying Least Skipper. As I proceeded along the shore of the pond, another skipper flew by and landed on one of the numerous asters that still blossomed in profusion. While I watched it, I realized that it was not a skipper I immediately recognized, so I netted it for further study. It was a medium- to largesized skipper and was generally undistinguished looking. Its overall coloration was brown with only the faintest hint of yellowish tones. At first I suspected it might be a Broad-winged Skipper flying very late in the season, its colors faded. However, it did not look like a Broad-winged Skipper, nor were there any nearby Broad-winged colonies to my knowledge. The late date was also a problem. At this point, I vaguely recalled Swarthy and Brazilian skippers, two southern species unfamiliar to me but possible fall vagrants to Massachusetts. I placed the butterfly in a plastic bottle and upon arriving home, determined to identify it.

My initial impression that this was a dark skipper with no obvious markings was

confirmed. The only remarkable aspect of the butterfly was the shape of its wings, extremely long and narrow with the forewing extending almost one-quarter inch beyond the hindwing. This distinctive wing shape was unknown to me and quickly set my juices flowing. I consulted my field guides and found that the only skippers with this striking wing shape were all in the genus Panoquina. And none of these ranges into Massachusetts, or so the guides said! Geographically, the closest occurring representative of the genus is the Salt Marsh Skipper, P.panoquin, a species that occurs as far north as the New York City area, but is local and decidedly uncommon there. However, the Salt Marsh Skipper is distinctly yellowish in coloration and displays an obvious elongate pale streak on the underside of the hindwing, features my butterfly lacked. The uniform brown coloration, lack of obvious wing markings, and characteristic wing shape pointed rather conclusively to Ocola Skipper, a skipper rarely straying north to the mid-Atlantic states during good flight years.

Feeling secure in my identification, I called Brian Cassie to inform him of my find. He was nearly as excited as I was and said that this discovery surely represented the first record for Massachusetts and most likely for New England as well.

Previously, Brian had sent me a letter he received from Harry Pavulaan of Virginia, recounting butterflies that Pavulaan had seen on a recent visit to Rhode Island. In the letter, he informed Brian that several butterfly species were experiencing exceptionally good seasons in the Washington, D.C. area and that they should be looked for in Massachusetts during the fall. Included among these was Ocola Skipper, which was present in unusually large numbers for so early in the season (late July). I sent Harry Pavulaan a note about my discovery and congratulated him on his ability as a prognosticator. In a brief note to me, Pavulaan apprised me of a "ancient" record of Ocola Skipper from Milton, MA, mentioned in an unpublished Ph.D. thesis: List of the Lepidoptera of New England, Donald W Farquhar. The record was undated but could possibly have been from 1912, when two records were made in Providence, RI. Pavulaan further stated that this Ocola was a "hundred-year" bug up our way, a once-in-a-lifetime find that many would envy.

TWO VERSIONS OF A WESTPORT / SOUTH DARTMOUTH FIELD TRIP by Brian Cassie and Seth Gross

Brian: September 25, 1994 - 100% overcast; 07:10-12:30; MBC trip, with nine members in attendance; areas visited were **A**. Gooseberry Neck, Westport and **B**. Allen's Pond, South Dartmouth; species seen were:

	A	В
CABBAGE WHITE	200	15
CLOUDED SULPHUR		10
ORANGE SULPHUR	40	20
AMERICAN LADY	1	1

MOURNING CLOAK				1
QUESTION MARK				1
RED ADMIRAL			1	
COMMON BUCKEYE				2
MONARCH			125	50
LEAST SKIPPER	,		1	

also larvae of American Lady [8] and the moth Eight-spotted Forester [10]

Seth: I went looking for butterflies at Gooseberry Neck in Westport. I found tons of Monarch caterpillars, more than I've seen in my whole life. I also found snails, sea glass, and caterpillars that you find behind folds.

Brian: What a difference three and a half decades can make in a butterfly watcher's trip recollections. Seth Gross is five and a bundle of energy. He and his mom, Robin, look for butterflies around their home. Seth's sister, Sarah, is eleven. Sarah got the other members of her family interested in butterflies. Here is her first "MA Butterflies" article:

MY EXPERIENCES WITH BUTTERFLIES by Sarah Gross

I saw a butterfly for the first time when I was three years old. It was so pretty I wanted to learn more about it. I took a few books out of the library and was fascinated. I soon learned how to catch these creatures without harming them. My parents were very enthusiastic about my new hobby. My father made me a 6'x8' butterfly cage, covered with cheesecloth. I must have had twenty butterflies in there at a time. But my favorite place for butterflies was in my room. I set some fresh flowers and sugar-water on my window sill and watched the butterflies feed. I never kept a butterfly for more than a few days, with the exception of female Monarchs that I kept for eggs. That was the first summer I raised Monarchs. Monarchs are my favorite type of butterfly and it still gives me great pleasure watching one emerge from the chrysalis.

My mother has always loved gardening and was more than willing to put Butterfly Bushes in her garden. She was a little hesitant about milkweed but reluctantly agreed. At first, my mother and I couldn't get a bit of milkweed into our garden. After a lot of hard work, we had three milkweed plants in our yard. Now, a few years later, we can't control the dozens and dozens of milkweed that seemed to appear out of nowhere.

I have learned of groups and societies that also love butterflies. Through belonging to these organizations I have learned more about butterflies. I belong to a junior garden club where I have pursued my interest in butterfly gardening. My mother has also taken up an interest in butterflies and willingly drives me to butterfly farms and lectures, so that I may expand my knowledge of these wonderful species. I understand I missed a special trip to Westport. Next time I'll think twice about sleeping late.