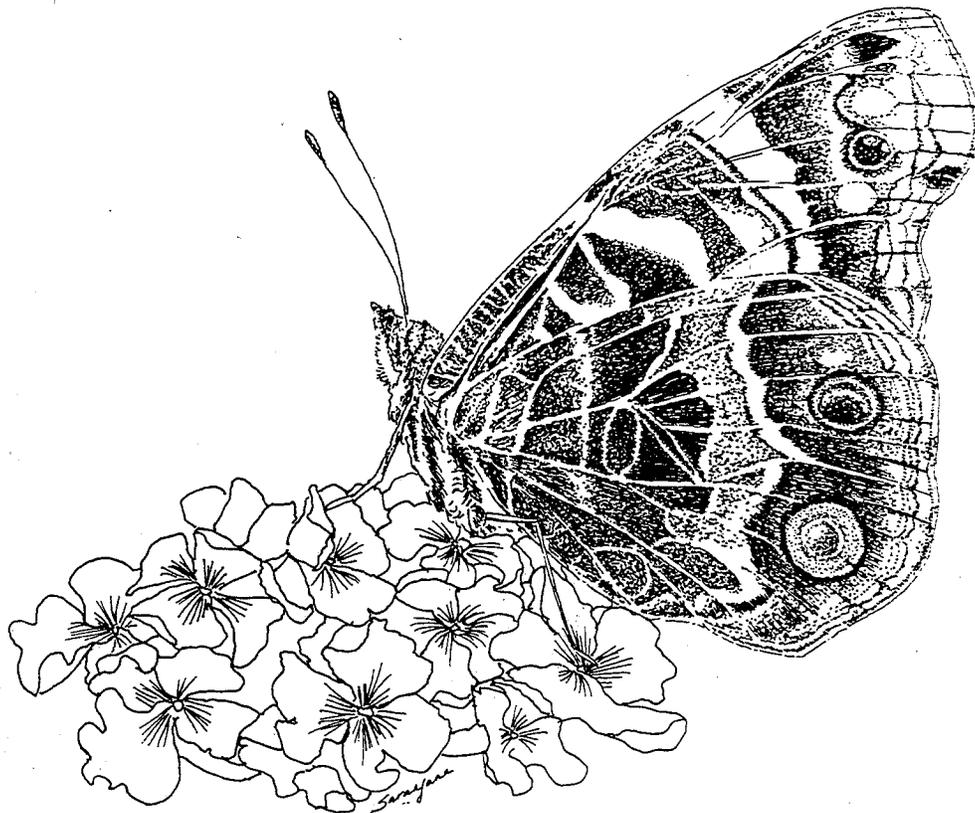


MASSACHUSETTS
BUTTERFLIES
No. 4

August 1994



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WELCOME TO NEW MEMBERS OF THE MASSACHUSETTS BUTTERFLY CLUB

Bobbye Samdahl
Joanne van Sambeek
Mary Ann Perkins
Deborah Diggins
Suzanne Mahler
Michael Blackmore
Rita Grant
Carl Kamp
Susan Barry
Tim Leonard
Ann Rothberg
Carol Lemmon
Robert Bowker

JOIN THE NORTH AMERICAN BUTTERFLY ASSOCIATION AND AT THE SAME TIME SUPPORT THE MASSACHUSETTS BUTTERFLY CLUB. If you have not already joined NABA, you can join through the Massachusetts Butterfly Club and NABA will contribute one-half of your first year's NABA dues to our club. NABA is a non-profit organization that promotes butterfly watching, publishes an outstanding quarterly magazine, a newsletter, and sponsors the Fourth of July Butterfly Counts. NABA dues are: Regular \$20.00, Family/Sponsor \$30.00. Make your check payable to NABA, but send it directly to the MBC at the above address. Thanks.

1994 SUPPORTING MEMBERS OF MBC - SPECIAL THANKS
S. Goldstein, L. Lovell, T. Dodd, T. Fowler, R. Hildreth, M. Fairbrother, R. Walton, N. Weiss, J. Berry, R. Stevenson, J. Boettner, K. Ryan, D. Small, J. Baird, M. Storkerson, The Gross family, B. Malcolm, R. Cech, R. Grant

APRIL 15 MBC MEETING

Chris Phillips, director of Broad Meadow Brook Sanctuary in Worcester, kindly hosted the spring MBC meeting at the sanctuary's visitor center. Broad Meadow Brook, through the field work of Tom Dodd, Gail Howe, and others, has amassed the largest list of butterflies, by far, of any M.A.S. property. Chris and Tom showed us a cable program that they developed on the sanctuary's butterflies. Additional short programs were presented by Suzanne Mahler, with fine slides of butterflies in her magnificent garden; Lyn Lovell, with an innovative "egg and caterpillar" slide show; Richard Walton, with a terrific 25-skipper video quiz (some of them were tough); and Richard Lent, with slides showing his butterfly research in Petersham. Mark Astrella displayed a number of his remarkable butterfly paintings. The food, hospitality, and conversation, as well as the programs, were excellent.



FALL GET-TOGETHER

It looks like it should be a better-than-average, maybe great, Monarch flight this fall. One of the best areas in the state to witness migratory concentrations of Monarchs is Gooseberry Neck, in Westport. Nearby Allen's Pond in Dartmouth can also be a fine butterfly area. If conditions are right, we may see hundreds or perhaps thousands of butterflies on the Seaside Goldenrod and asters.

Mark your calendar for SEPTEMBER 25. We will meet at the entrance to Gooseberry Neck at 7:00 a.m., and again at 9:00 a.m. for the late arrivals. Plan to bring lunch. The club will provide drinks and snacks.

Don't forget your camera - there will be lots of time for photography!

Please call Brian Cassie @ 508-543-3512 or write to let us know if you are coming and to get further details and directions.

LET'S HOPE FOR GREAT WEATHER AND LOTS OF RED ADMIRALS, BUCKEYES, QUESTION MARKS, PAINTED LADIES, AND MONARCHS (AND MAYBE EVEN A LONG-TAILED SKIPPER -- THEY'RE ON THEIR WAY NORTH). SEE YOU THERE!

SILVERY BLUE UPDATE

In "Massachusetts Butterflies" No.2, August 1993 we highlighted the Silvery Blue, with a cover illustration by Sarah Jane Cassie, a letter by Doug Savich describing his encounters with the species in Gloucester, and an editor's note, with some historical information. Until this year, there were three, or possibly four records for Silvery Blue in Massachusetts. The species has spread rapidly southward from northernmost New England in recent years. We asked MBC members to be on the lookout for Silvery Blues this year and as of press time, we received reports from Pittsfield, Gloucester, Quabbin Reservoir, Amherst, Adams (one or two sites), and the Middlesex Fells. Most areas had a few individuals present, but up to twenty-five were flying at once at Adams.

It appears as though the Silvery Blue made a remarkable leap southward during the last year, as evidenced by the Pittsfield, Amherst, and Middlesex Fells reports. In the past fifteen years, two butterflies, the Common Ringlet and the European Skipper, have gone from nonexistent to abundant status in Massachusetts. Because there was no statewide network of observers in place when these species made their pushes into the state, we can only guess at how the populations spread. We can do a lot better with the Silvery Blue and we are encouraging all MBC members to report all Silvery Blue sightings from 1994, as well as urging you to look for the species more carefully in late May-June 1995.

EXCEPTIONALLY EARLY MONARCH FLIGHT

Imagine my surprise when Bob Stymeist called on the night of April 16 to say he had seen a Monarch that morning at Forest Hills Cemetery in Boston. I tried to talk him into another species. I mean, we don't get Monarchs here in April. He was adamant. I suggested that it may have been a classroom project butterfly, set free by a teacher. When he called the next night to tell me about the Monarch he and Jonathan Center had seen in Westport, we knew something was up with the Monarchs. For whatever reason, presumably unseasonably warm temperatures in Mexico, the Monarchs arrived in the Northeast at record-early dates. Besides these two records, there were April Monarch sightings in Gloucester and the Connecticut Valley. In New Jersey, Pat Sutton and her team of observers reported the same phenomenon.

OUR TRIP TO THE FIRST NABA MEETING
by Lyn Lovell

Several members of the Massachusetts Butterfly Club enjoyed the first meeting of the North American Butterfly Association at Richard Stockton College in New Jersey on May 6-8, 1994. The college is situated in the famous Pine Barrens, home of many intriguing plants and interesting butterflies.

The weekend began with our small party, Stan Bolton, Tom Dodd, Brian Cassie, and myself heading out from Milford, MA at 5:30 a.m. After suffering through a week of rain, we were excited about the prospects of seeing some different butterflies. On the drive south, we saw some good birds, but we saw no butterflies until we pulled off onto the road to the Tuckerton Marshes, in coastal New Jersey. A beautiful Juniper Hairstreak crossed the windshield, and as Tom pulled over for a close look, a male Falcate Orangetip put in an appearance. This set the tone for a great weekend.

We drove on to the college to register and to socialize with some of the 170 butterfly watchers from all over the United States, as well as Canada, Mexico, and England. All who attended were impressed with the meeting facilities and the terrific organization of the NABA volunteers.

The speaker for the first evening's program was Patricia Sutton, from Cape May. She gave a wonderful slide show on butterflies, caterpillars, and butterfly gardening. The first scheduled moth program was shortened because of rain.

Saturday morning (and Sunday morning, too, for that matter) found many of us birding at Brigantine National Wildlife Refuge. The pre-breakfast bird lists were about 100 species each day. Returning to the college at 8:30 for the morning program sessions, we had our choice of two excellent programs - skipper identification and butterfly identification for beginners.

Saturday's field trips to various Pine Barren locales ran smoothly. Jeff Glassberg didn't have to rescue any more than a few lost cars! The weather was not perfect; in fact, by mid-afternoon it was raining. Despite this, all of the hoped for specialty species, including Hessel's Hairstreak, four elfins, and four duskywings were seen by the field trippers. Back at the college in late afternoon, there was an author book signing. The evening's program was a mystery slide show and a presentation by NABA president Jeff Glassberg entitled "Butterflies of the Rio Grande Valley in Texas."

Sunday morning programs on conservation, gardening, and photography and late morning birding and butterflying at Cape May brought the NABA festivities to a successful end. Thirty-three butterfly species were seen on the wing, with an additional two species seen in the larval state.

Everything went well on the weekend. We saw quite a number of good butterflies and a number of good butterflyers - Massachusetts was pretty well represented at the meeting. You should have been there if you weren't!

RESULTS OF SPRING/SUMMER MBC FIELD TRIPS

May 15 - Middlesex Fells Reservation. Leader : Brian Cassie . 15 Participants

Tiger Swallowtail, sp?	2	Eastern Pine Elfin	2
Cabbage White	4	Red Admiral	1
Clouded Sulphur	1	Juvenal's Duskywing	10+
Eastern Tailed-Blue	2	Wild Indigo Duskywing	3
Spring Azure	10	Cobweb Skipper	20+

May 28 - Foxboro. Leader : Brian Cassie. 4 Participants

Tiger Swallowtail, sp?	11	Pearl Crescent	3
Cabbage White	1	Eastern Comma	1
Clouded Sulphur	1	American Lady	1
American Copper	9	Little Wood Satyr	7
Juniper Hairstreak	25	Common Ringlet	1
Frosted Elfin	1	Dreamy Duskywing	6
Eastern Pine Elfin	3	Juvenal's Duskywing	8
Eastern Tailed-Blue	4	European Skipper	many larvae
Spring Azure	6	Cobweb Skipper	20
		Indian Skipper	6

June 11 - West Bridgewater . Easton. Leader : B. Cassie. 10 Participants

Tiger Swallowtail, sp?	1	Pearl Crescent	11	Least Skipper	2
Orange Sulphur	2	Question Mark	1	Indian Skipper	4
American Copper	3	Red-sp. Purple	1	European Skipper	10
Spring Azure	2	Viceroy	1	Long Dash	4
Silver-b. Fritillary	3	Little Wood Satyr	6	T.-edged Skipper	3
Harris' Checkerspot	60	Common Ringlet	20	Peck's Skipper	3
Baltimore	100's of larvae	Monarch	1	Hobomok Skipper	1

June 11 - Grafton. Leader : Lyn Lovell. 15 Participants

Eastern Tiger Swallowtail	4	Little Wood Satyr	3
Cabbage White	3	Common Ringlet	50
Clouded Sulphur	1	Monarch	2
Orange Sulphur	4	European Skipper	5
Brown Elfin	1	Peck's Skipper	2
Spring Azure	1	Hobomok Skipper	1
Silver-bordered Fritillary	2		

June 18 - Holden. Leader : Tom Dodd. 2 Participants

Eastern Tiger Swallowtail	1	Common Ringlet	4
American Copper	1	Silver-spotted Skipper	1
Harris' Checkerspot	65	European Skipper	2
Viceroy	3	Long Dash	6
Little Wood Satyr	4	Peck's Skipper	3

July 17 - Middlesex Fells Reservation. Leader : Brian Cassie. 20 Participants

Eastern Tiger Swallowtail	5	Monarch	1
Spicebush Swallowtail	1	Silver-spotted Skipper	10
Cabbage White	2	Crossline Skipper	1
Red-spotted Purple	1	Northern Broken Dash	3
Red Admiral	1	Little Glassywing	2
Mourning Cloak	1	Dun Skipper	5
American Lady	2		

1994 NABA-Xerces 4th of July Butterfly Counts



SPECIES	Northern Berkshire Co.	Central B'shire Co.	Central Franklin Co.	Foxboro	Concord
Black Swallowtail	9	12	6	1	11
Eastern Tiger Swallowtail		2	15	17	25
Canadian Tiger Swallowtail	6				
Spicebush Swallowtail		1	2	1	1
Mustard White		23			
Cabbage White	28	271	26	36	64
Clouded Sulphur	97	80	236	125	121
Orange Sulphur	46	63	88	110	103
American Copper		8	21	309	26
Bronze Copper		1			
Bog Copper			400	27	4
Coral Hairstreak	12	3	10	60	2
Acadian Hairstreak	7	1	1	10	
Edwards' Hairstreak				4	
Banded Hairstreak	3	3	16	12	3
Hickory Hairstreak	1				
Striped Hairstreak	1	2	1	27	5
Southern Hairstreak				1	
Gray Hairstreak			1	14	5
Eastern Tailed-Blue		6	85	14	8
Spring Azure	114	34	29	11	21
Variegated Fritillary				1	2
Great Spangled Fritillary	62	29	67	216	6
Aphrodite Fritillary	31	3	10	7	2
Atlantis Fritillary	230	630	1		
Silver-bordered Fritillary			5	6	10
Meadow Fritillary	1	1	30		
Pearl Crescent	5	39	21	404	132
Baltimore		7	16	94	
Question Mark	9	4	28	3	
Eastern Comma	3	16	9	3	
Compton Tortoiseshell	1	1	1	1	
Mourning Cloak	5	3		5	1
American Lady	21	12	13	83	17
Painted Lady		1	1	2	
Red Admiral	4	3	15	16	11
Common Buckeye		1			

1994 NABA-Xerces 4th of July Butterfly Counts



SPECIES	Northern Berkshire Co.	Central B'shire Co.	Central Franklin Co.	Foxboro	Concord
[White Admiral]	29	4	4		
Red-spotted Purple	24	6	4	7	99
Viceroy		7	8	12	20
Northern Pearly Eye	2	8			1
Eyed Brown		6	2	19	14
Appalachian Brown			3	6	3
Little Wood Satyr				23	33
Common Ringlet	3				
Common Wood Nymph	21	74	9	687	86
Monarch	37	46	57	48	81
Silver-spotted Skipper	2	4	55	51	17
Hoary Edge			1		
Southern Cloudywing			1		
Northern Cloudywing				1	
Juvenal's Duskywing				1	
Horace's Duskywing				2	2
Wild Indigo Duskywing				27	6
Common Sootywing			2		10
Least Skipper	3	2		1	
European Skipper	63	16	57	35	
Peck's Skipper	103	23		1	
Tawny-edged Skipper	5	5	4	4	2
Crossline Skipper	2	1	4	15	
Long Dash	2	4	3	5	6
Northern Broken Dash	11	3	12	37	
Little Glassywing	1	1	1	10	5
Delaware Skipper	4		28	22	6
Mulberry Wing		33		27	10
Hobomok Skipper	1	1			
Black Dash			13	24	4
Dun Skipper	15	10	46	68	33
Pepper-and-Salt Skipper			1		
Total # of Species	39	49	47	54	41
Total # of Individuals	1032	1484	1474	2757	904
Total # of Participants	4	9	14	10	18
Total # of Party-hours	22	21	38	45	19
Count Date	July 13	July 17	July 9	July 10	July 16

COMMENTARY ON FOURTH OF JULY COUNTS

NORTHERN BERKSHIRE COUNTY - Mark Fairbrother, compiler

Although pre-count conditions were somewhat dry, vegetation was in much better shape than in 1993.

CENTRAL BERKSHIRE COUNTY - Tom Tynning, compiler

The three weeks preceding the count included some of the hottest periods on record for our area. Common Milkweed was in peak bloom in some areas, going by or even beginning to seed in others. Joe-Pye-Weed was partly in bloom. Though the day was supposed to be hot and sunny, clouds moved in fairly early, and it began to downpour at 3:00 p.m., when all teams who were still in the field headed in.

CENTRAL FRANKLIN COUNTY - Mark Fairbrother, compiler

Nectar sources were in good condition despite somewhat hot and dry weather leading up to count day.

FOXBORO - Brian Cassie, compiler

Although it was drizzling when the field parties set out for the day, the weather quickly improved and the result was a record high species total for the count, with two additional species, Harris' Checkerspot and Dreamy Duskywing, found as larvae.

CONCORD - Richard Walton, compiler

New for the count was Horace's Duskywing. Several new count highs were achieved, including the number of Monarchs, which may bode well for the fall migration. Skipper numbers seemed low but may have been the result of concentrated nectaring areas of Common Milkweed having gone by.

THANKS TO ALL OF THE COMPILERS AND PARTICIPANTS ON THE FOURTH OF JULY COUNTS. THIS YEAR'S COUNTS WERE SOME OF THE BEST EVER.

IF YOU'VE NEVER DONE A COUNT, CONTACT ONE OF THE COMPILERS LISTED ABOVE. YOUR HELP IS APPRECIATED.

SAMUEL SCUDDER - ESSAY ONE

Samuel Scudder was one of our foremost entomologists. He wrote extensively on butterflies and authored the exhaustive **The Butterflies of the Eastern United States and Canada, with special reference to New England**, published in three volumes in 1889.

Scattered among the 2,000+ pages are essays on various aspects of butterfly life. These essays were modified for the non-specialist and published in separate form, in 1895, in the book **Fragile Children of the Air**.

We shall reprint excerpts from this work on a regular basis. Here is the first essay. Please let us know what you think.

PERIODICITY IN THE APPEARANCE OF BUTTERFLIES

Every year we read in the pages of our entomological journals something about the rarity or abundance of this or that insect. Particularly is this the case with those insects which are agricultural scourges, since here the observation of their comparative abundance or scarcity is quickened. It is none the less true, however, of other insects, and among them of butterflies. Indeed, there are comparatively few butterflies which appear in similar numbers each year. There is always more or less fluctuation in this regard, but we notice it only when their excessive abundance, especially with such swarming butterflies as the Monarch and the Painted Lady, or their great rarity causes general comment, at least among entomologists. Sometimes we can directly tell the cause of a scarcity, rarely that of a superabundance; for in the former case, the scarcity may involve several species, and the plain cause some excessive or exceptional meteorological conditions.

Now though the massive meteorological conditions which we term climate have undoubtedly very much to do

with the distribution of butterflies and determine, indeed, in very many cases, whether or not a given kind shall or shall not live in a certain place, the indirect results of meteorological conditions have undoubtedly more to do with the abundance or scarcity of a given butterfly in a given season. For the very existence of the butterfly shows its capability of withstanding the excesses of meteorological conditions in the spot in which it lives, and the greatest stresses under which it lives are those more active forces, like insectivorous creatures and parasites, which find their own life dependent on taking its life, or its neighbor's. The activity of these is governed largely by the temperature and storm conditions, and hence the indirect influence of meteorological conditions on the life of the butterfly may be more important than the direct. A caterpillar which could withstand any amount of cold or of warmth in itself might not be able to battle against the foes which a mild winter kept in unusual activity and in need of sustenance. It does not appear that our butterflies suffer particularly from an exceptionally long winter, but rather from unusual warmth, sufficient to arouse insects from torpor at times when hibernation should be expected; or, in the fair season, directly from long continued storms and moisture.

The fluctuation therefore in the numbers of our butterflies is probably due in large measure to the activity or inactivity, the abundance or rarity, of their active enemies, and especially, considering how extensive their depredations, to the abundance or otherwise of their parasites. It is the striking of the balance which exists between a creature and its enemies in the struggle of each for its own existence. Let some event, untoward to it, decrease the ratio of the parasite, the butterfly flourishes; but its very consequent superabundance the following year only gives a better pasturing ground to the parasite, reduces the butterfly below normal, and causes the parasite to abound inordinately, only to find its food supply cut off by its own voracity and incontinence and the scales again to be turned. It is then perpetual warfare, this unending, inexorable struggle for existence, testing the fitness to survive, which is the prime cause of periodicity in the abundance of a species.

WHAT MBC MEMBERS ARE DOING - BUTTERFLYWISE !

RICHARD WALTON - In July, Dick did a television program and field trip for WGBH. He will be at Cape May, New Jersey from mid-September to mid-October for the fourth year of his Monarch migration study. He continues to gather videos of butterflies, particularly skippers. In June, he got a chance to see some prairie species while on a trip to North Dakota.

GUY TUDOR - In April, with the New York City Butterfly Club, of which he is president, Guy drove down to West Virginia and Virginia to look for some of the spring specialties of the region. They saw what they went for. In mid-June, in western Montana, Guy signed copies of his new volume on South American birds at the AOU convention, and then looked around the region for butterflies, birds, and mammals (Guy compiles the greatest trip lists.).

PATRICIA SUTTON - Pat was one of the keynote speakers at the NABA meeting in May. She continues to educate the southern New Jersey populace about how great butterflies are. Pat and her husband Clay are co-authors of a wonderful new book on owls, HOW TO SPOT AN OWL.

ROBERT STEVENSON - From his desk at the U. of MA biology department, Prof. Stevenson will be traveling south to Costa Rica to continue butterfly migration studies at Monteverde this fall and winter.

CHRIS PHILLIPS - As director of the MAS sanctuary at Broad Meadow Brook in Worcester, Chris has developed a series of cable television programs about the area's natural history. One of the programs featured Chris and Tom Dodd exploring the sanctuary and looking at its butterflies and caterpillars.

KAREN PARKER - Karen led the butterfly field trip at the 25th anniversary weekend of The Naturalist' Club on July 9-10 at Northfield Mountain Environmental Center.

BRIAN MALCOLM - He has just returned from visiting one of America's premier butterfly hotspots, southeastern Arizona.

JEFF GLASSBERG - Jeff keeps NABA rolling along, as all of you members know. He has led or will lead butterfly trips to Florida, Texas, Trinidad, and the mid-Atlantic states this year.

TOR HANSEN - Tor is busily and happily photographing Cape Cod butterflies this summer in preparation for a book project.

RICHARD CECH - Rick is editing "The Anglewing," the new newsletter of NABA. Rick also put together a terrific annotated checklist of the butterflies of the New York City region.

MADLINE CHAMPAGNE - Madeline presented her program on butterflies and caterpillars at the 27th annual Sharon, CT Audubon Festival on July 30 -31.

LYN LOVELL - Lyn gave a number of butterfly slide shows throughout Worcester County this spring and summer and has led field trips for the MBC and the Forbush Bird Club (for butterflies, of course).

TOM DODD - Tom continues to find more butterfly species at Broad Meadow Brook Sanctuary - his latest was a Harvester. Tom has also been monitoring a population of Harris' Checkerspots in Holden and recently counted over 1100 larval webs at the site.

BRIAN CASSIE - Brian presented "Butterfly Watching in New England" at the Connecticut State Museum of Natural History's INSECT FAMILY DAY, July 9-10 at the University of CT, Storrs.

JEFF BOETTNER - Jeff has been working on the Regal Fritillary restoration project since its inception. He reports that progress is being made. We all look forward to the day when Regal Fritillaries are once again flying in New England.

NOTE TO MEMBERS : PLEASE SEND ALONG NEWS AND NOTES ABOUT YOURSELF AND OTHER CLUB MEMBERS FOR THE NEXT ISSUE OF "MASSACHUSETTS BUTTERFLIES." WE ENCOURAGE YOU TO SUBMIT ARTICLES ABOUT YOUR BUTTERFLY RESEARCH, " WHERE TO GO" ARTICLES, NOTES ON BUTTERFLY BEHAVIOR, BUTTERFLY GARDENING TIPS, AND FIELD NOTES FROM MASSACHUSETTS AND BEYOND.

A LOT OF INSECTS!

I haven't seen any new butterflies at my house this year. Now, it has been a pretty good butterfly year in the Northeast and perhaps something will stray along into the yard, but I would guess my six-year forty-something total for butterfly species at 28 Cocasset Street is going to stay put for 1994.

We live on 17,000 square feet, right in the middle of Foxboro. Our flowers do attract a lot of insects, and I have been tempted several times to survey the yard to try to figure out what kinds of insects visit us. If I ever get around to it, I'll have Frank Lutz to thank for inspiration.

Frank Lutz was curator of insects at the American Museum of Natural History in New York City in the 1930's. One day, as he put it:

"I was pleading with the Director of the Museum to enlarge the staff of the entomological department. I pointed out that, the more species there are in a group of animals or plants, the more difficult it is to identify any one of them. But, even leaving this fact out of account, at least three-fourths of the staff of any zoological museum should be entomologists because there are more than three times as many species of insects as there are of all other kinds of animals put together."

"Why," said I, "more different kinds of insects either live in or come of their own free will to the 75x200-foot yard of my home in the middle of a suburban town than there are different kinds of birds in all of the United States and Canada."

The Director, Doctor Lucas, was a kind gentleman. He admitted that the American Museum needed more entomologists; but, as to the other matter, well, "exaggeration due to enthusiasm is excusable."

It was quickly discovered that neither of us at that time knew very accurately how many different kinds of birds there are in the United States and Canada. Such being the case, I shifted and said that at least five hundred different kinds of insects either make their living on or come of their own initiative to our home-lot, 75 feet front and 200 feet deep, near the center of a suburban town.

"Now," said Mr. Director, "I know that you are exaggerating. That is a lot of insects."

"Meaning a great many or what? At any rate, if the Museum will agree to raise my salary by ten dollars a year for every species above five hundred that I honestly find on our lot, I shall agree to have my salary reduced by ten dollars a year for every species short of five hundred."

I suppose that it was thinking about our house and lot that brought my personal finances into the discussion. As a matter of fact, the bargain was not made, and the entomological staff at the Museum was not greatly increased; but I did start collecting the insects that I saw in my rambles on "the estate," not doing it intensively but just casually as the years passed.

(So) what about that bargain that wasn't made? Let's "look at the record."

ORDERS	# OF SPECIES FOUND
Thysanura (Bristletails)	2
Collembola (Springtails)	1
Plecoptera (Mayflies)	3
Plecoptera (Stoneflies)	6
Odonata (Dragonflies and allies)	10
Orthoptera (Grasshoppers and allies)	29
Phasmatodea (Walkingsticks)	1
Dermaptera (Earwigs)	1
Thysanoptera (Thrips)	2
Mantodea (Mantids)	1
Isoptera (Termites)	1
Corrodentia (Booklice)	1
Mallophaga (Chewing Lice)	7
Anoplura (Sucking Lice)	1
Hemiptera (Bugs)	137
Megaloptera (Dobsonflies and allies)	2
Neuroptera (Lacewings and allies)	9
Mecoptera (Scorpionflies and allies)	3
Trichoptera (Caddisflies)	3
Lepidoptera (Moths and Butterflies)	467
Diptera (Flies)	258
Siphonaptera (Fleas)	1
Coleoptera (Beetles)	259
Strepsiptera (Twisted-winged Parasites)	1
Hymenoptera (Bees, Ants, and allies)	167
TOTAL	1402

From: A LOT OF INSECTS. by Frank Lutz. Putnam's Sons, N.Y. 1941