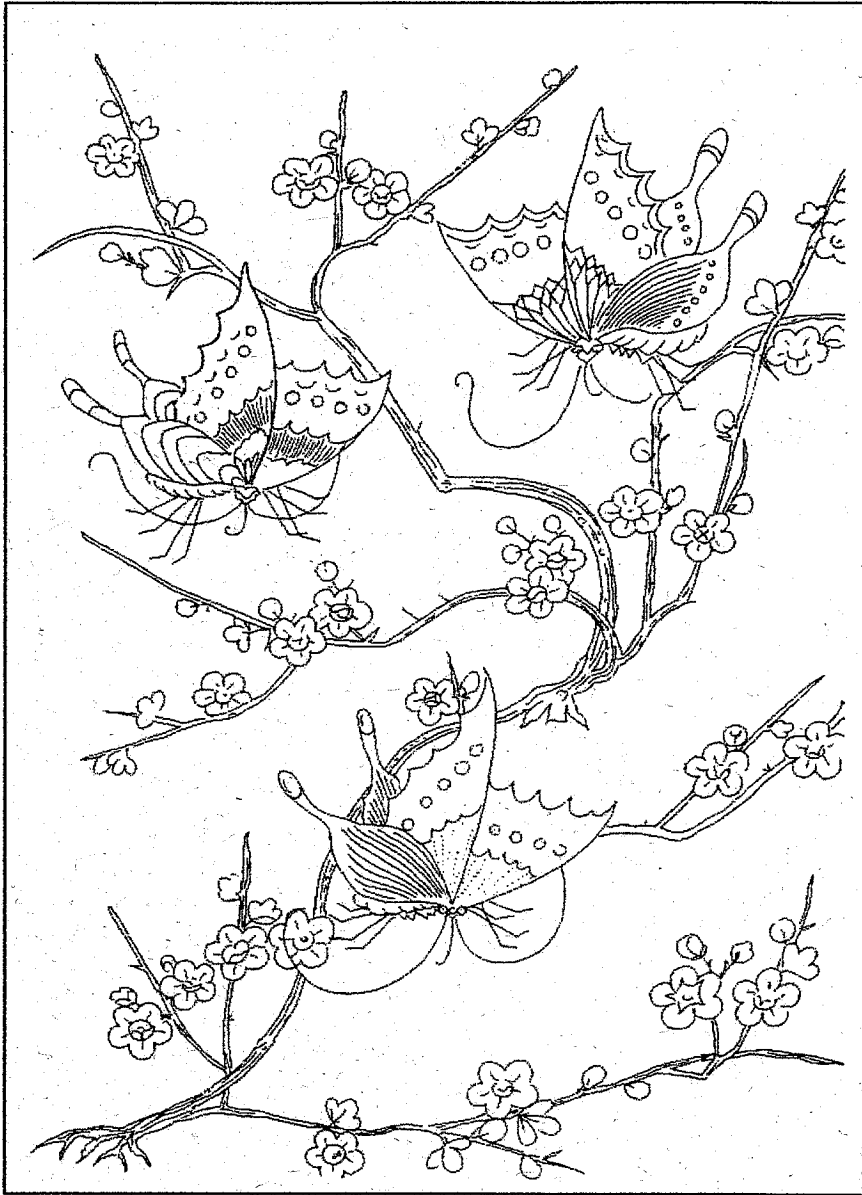


# Massachusetts Butterflies

Fall 2002, No. 19



*Massachusetts Butterflies* is the semiannual publication of the Massachusetts Butterfly Club, a chapter to the North American Butterfly Association. Membership in NABA-MBC brings you *American Butterflies*, *Massachusetts Butterflies*, *Butterfly Gardner*, and all of the benefits of the association and club, including field trips and meetings. Regular dues are \$30 for an individual, \$40 for a family, and \$60 outside the United States. Send a check made out to NABA to: NABA, 4 Delaware Road, Morristown, NJ 07960.

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### **Submission of Articles, Illustrations, and Season Records**

We encourage all members to contribute to *Massachusetts Butterflies*. Articles, illustrations, local and out-of-state sightings, adventures, and book reviews are welcome and should be sent to the editor by September 15 (fall issue) or January 15 (spring issue).

Send Fourth of July counts to Tom Dodd by August 1 for the fall issue and your season sightings and records to Tom by December 1 for the spring issue. Sending your records periodically during the season will make data entry an easier task.

#### **Webmaster Wanted**

We are looking for a Webmaster to develop and maintain a site for MBC, updating it a few times a year with *Massachusetts Butterflies* articles, trip schedules, and other material. If you know how to do this and are interested in helping out, please get in touch with Madeline Champagne, address above.

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Cover: Embroidery design from 18<sup>th</sup> century Japanese Noh costume.

## The Hairstreaks of Massachusetts

by Brian Cassie

Hairstreaks are like the sparrows of the butterfly world—they are mainly shades of gray and brown and often a challenge to identify. But, like sparrows when seen well and in good light, they are strikingly handsome and always a pleasure to find and watch. No group of Massachusetts butterflies has more aficionados.

Following are short species accounts of the hairstreaks known from Massachusetts (minus the elfins, which will come at a later date). In future issues of *Massachusetts Butterflies* other groups of Bay State butterflies will be summarized. Comments, updates, and corrections are most welcome.

### **Acadian Hairstreak**

*Range:* The resident Acadian Hairstreak occurs over much of the state but is apparently absent from Cape Cod and the Islands.

*Status:* This is one of the less common Satyrium hairstreaks in Massachusetts. It is generally uncommon and is usually found in small numbers. Bristol County is one of the best places to find Acadian Hairstreaks, though just across the canal in Barnstable County it is apparently nonexistent.

*Maximum:* 40 at New Bedford (date unspecified).

*Habitat(s):* Wet and dry meadows, fields, gardens, power- and gasline clearings, and other open, well-vegetated areas near the host plants are good areas for this species.

*Flight Dates:* One brood; mainly July; earliest 21 June 1998, latest 12 August 1992.

*Larval Food Plants:* All of the known host plants are willows, including Black Willow and Pussy Willow, both of which are common in Massachusetts.

*Selected Nectar Plants:* Meadowsweet, dogbanes, and milkweeds are prime nectar sources for this species.

*Identification:* There are two hairstreaks in Massachusetts that are gray colored below, the Gray Hairstreak and the Acadian Hairstreak. The Acadian Hairstreak can easily be recognized by the series of white-circled black dots that make up the median line on the wings beneath.

### **Banded Hairstreak**

*Range:* The Banded Hairstreak is resident in Massachusetts and occurs in all counties except Nantucket.

*Status:* Typically fairly common, the Banded Hairstreak is the most frequently seen Satyrium hairstreak in many parts of Massachusetts. In common with some other species in the genus, this hairstreak occasionally has great, if local, flights. One such flight was noted in the Foxboro area in July 1992, when thousands were in evidence.

*Maximum:* 3575 at Foxboro and vicinity on 8 July 1992 (Fourth of July Butterfly Count). As many as 1100 were seen at a single locality on the count.

*Habitat(s):* Woodland edges, meadows, fields, gardens, and other open areas with nectar and host plants attract Banded Hairstreaks.

*Flight Dates:* One brood; typically late June through July; earliest 12 June 1999, latest 20 August 1992.

*Larval Food Plants:* Oaks, walnuts, hickories, and American Chestnut are documented caterpillar food plants.

*Selected Nectar Plants:* Banded Hairstreaks have been recorded on many nectar plants but appear to be especially partial to milkweeds, dogbanes, New Jersey Tea, and Smooth Sumac.

*Identification:* This species most closely resembles the rarely seen Hickory Hairstreak (see that species for differences with Banded) and the frequently seen Striped and Edwards' Hairstreaks. To separate Banded and Striped Hairstreaks, note that the Banded has no orange cap on the blue mark at the outer edge of the hindwing beneath, whereas the Striped has a prominent orange cap. To separate Banded and Edwards', note that Edwards' has a median band on the undersides of the wings consisting of dark dashes encircled with white, whereas the Banded has a median band of dashes typically with white bordering only the outer edges.

### **Coral Hairstreak**

*Range:* The Coral Hairstreak is a resident species that occurs throughout the Commonwealth.

*Status:* Coral Hairstreaks are apparently most common in southern and eastern Massachusetts, with relatively few records from the state's far western and northern areas.

*Maximum:* 25 at Middleboro on 19 July 1990.

*Habitat(s):* Wet and dry meadows, shrubby fields, gardens, woodland edges and clearings, and other open situations are home to the Coral Hairstreak.

*Flight Dates:* One brood, typically early July to early August; earliest 27 June 1998 and 1999, latest 22 August 1990.

*Larval Food Plants:* Cherries and plums (probably all species within this butterfly's Massachusetts range) are the known host plants.

*Selected Nectar Plants:* Butterflyweed is a particular favorite of the Coral Hairstreak, but other milkweeds are very attractive nectar sources, as are dogbanes, New Jersey Tea, and various other wildflowers.

*Identification:* The coral-colored band on the undersides of the wings, along with the lack of tails, immediately identifies this species.

#### **Edwards' Hairstreak**

*Range:* The Edwards' Hairstreak is resident in Massachusetts and probably occurs statewide, though it has not yet been recorded in Berkshire County.

*Status:* Fairly common to very common in close proximity to the host plant, this hairstreak is usually found in modest numbers but may occur in lush abundance at times in Plymouth County and on Martha's Vineyard and Nantucket.

*Maximum:* 2000+ at Myles Standish State Forest, Plymouth (exact date unrecorded but sometime in July in the 1970s); also, 1000 at Myles Standish State Forest on 8 July 1988.

*Habitat(s):* Woodland edges, fields, power-line clearings, and other open areas with Scrub Oak.

*Flight Dates:* One brood; typically late June to early August; earliest 21 June 1990 and 1998, latest 23 August 1997.

*Larval Food Plants:* Several oaks are documented as host plants, but Scrub Oak is probably the primary host in Massachusetts.

*Selected Nectar Plants:* Milkweeds, dogbanes, and Meadowsweet attract Edwards' Hairstreaks. Blunt-leaved Milkweed, which is locally common in Myles Standish State Forest, is the primary nectar source there.

*Identification:* This species looks most like Banded Hairstreak (see that species for differences).

### **Hickory Hairstreak**

*Range:* The Hickory Hairstreak may range over much of the state, though all records from recent years have been from Berkshire, Hampshire, Hampden, Worcester, Middlesex, and Norfolk Counties.

*Status:* It is difficult to assess the status of this butterfly in Massachusetts. It may be generally rare or perhaps locally not uncommon; it may be overlooked and misidentified. In any case, it is seldom reported (the Northampton area would seem to be a stronghold based on numbers of reports). Photographic evidence of its presence anywhere in Massachusetts is always welcome.

*Maximum:* 6 at Northampton on 6 July 1997.

*Habitat(s):* Woodland edges and clearings in the vicinity of the host plants.

*Flight Dates:* One brood; typically throughout July; earliest 23 June 2001, latest 19 August 2001.

*Larval Food Plants:* Various hickories, including Pignut Hickory and Shagbark Hickory, are preferred. Other known host plants include ashes, American Chestnut, Butternut, and Red Oak.

*Selected Nectar Plants:* Dogbanes and milkweeds are known Hickory Hairstreak nectar sources.

*Identification:* The Hickory Hairstreak may well be one of the most misidentified butterflies in the Northeast. The pattern of lines on the underside is about halfway between a Banded Hairstreak and a Striped Hairstreak. One of the important field marks of the Hickory Hairstreak is the shape of the blue mark (known as the lunule) on the lower outer edge of the hindwing beneath. In this species, the lunule is tall, the blue being noticeably more extensive than in similar species. If this field mark is noted, you are on your way. See Glassberg's butterfly guides for further field marks.

### **Oak Hairstreak (formerly known as Southern Hairstreak)**

*Range:* The Oak Hairstreak apparently occurs in most Massachusetts counties, with the exception of Nantucket County.

*Status:* Considered a rare insect in Massachusetts at the turn of the 20th century, the Oak Hairstreak still qualifies as such, though perhaps it is not quite as uncommon as some authorities believe. In the last 10 years,

it has been found from Florence to Edgartown, with 30 records, involving about 45 individuals. All recent records, except the Florence sighting, are from eastern Massachusetts.

*Maximum:* 4 at Foxboro on 7 July 1992, 4 at Milford on 25 June 1999, and 3 to 4 at Hingham on 29 June 1999.

*Habitat(s):* Scrub areas, power lines, and fields with oaks and nectar plants.

*Flight Dates:* One brood; typically late June to mid-July; earliest 20 June 1999, latest 18 July 1993. Two-thirds of recent records fall between 20 June to 2 July.

*Larval Food Plants:* Oaks, perhaps especially White Oak, are the host plants in Massachusetts.

*Selected Nectar Plants:* Milkweeds, Meadowsweet, Maleberry, New Jersey Tea, and Yarrow have all attracted adult Oak Hairstreaks in the Bay State.

*Identification:* The Oak Hairstreak is distinctive when fresh. The ground color of the undersides of the wings is grayish brown and the median lines that cross them are mainly white, bordered by black, and on the hindwing these lines form a bold "w" pattern. The Gray Hairstreak, which is similar, especially when its underside coloration of light gray fades to brownish gray, has median lines that are mainly black bordered by white and that do not form a striking "w" pattern on the hindwings.

### **Striped Hairstreak**

*Range:* The Striped Hairstreak is a statewide resident in Massachusetts.

*Status:* Although this species is listed as local and uncommon by many authors, in Massachusetts it is both widespread and fairly common.

*Maximum:* 55 at Holliston on 30 June 2001.

*Habitat(s):* Fields, meadows, power- and gasline clearings, woodland edges and clearings, and other well-vegetated open areas harbor Striped Hairstreaks.

*Flight Dates:* One brood, typically late June to early August; earliest 18 June 1996, latest 30 August 1992.

*Larval Food Plants:* Striped Hairstreak caterpillars feed on a variety of plants, including hickories, mountain ashes, cherries, hawthorns, ashes, raspberries, Common Apple, and Red Oak, to name some.

*Selected Nectar Plants:* New Jersey Tea, Smooth Sumac, dogbanes, and milkweeds are among the nectar sources preferred by Striped Hairstreaks.



*Identification:* There are a number of hairstreaks that are brown below and that cause identification problems. Identification of the Striped Hairstreak is as straightforward as any. Look for the pattern of wide, offset stripes underneath. Also, note that the Striped Hairstreak has a prominent orange cap over the blue spot (lunule) on the lower and outer part of the hindwing beneath.

### **Hessel's Hairstreak**

*Range:* The Hessel's Hairstreak in Massachusetts occurs almost exclusively in the eastern half of the state, though not on Martha's Vineyard and Nantucket. It is known, exceedingly locally, from the southern Connecticut Valley

*Status:* A very local insect, the Hessel's Hairstreak is nonetheless to be expected in its prime habitat, Atlantic White Cedar swamps. This species was first collected in the Bay State, just over 60 years ago. Only in recent years, however, has its range in Massachusetts been fairly well determined (or so we think).

*Maximum:* 8 to 10 at Raynham on 28 May 1988.

*Habitat(s):* Atlantic White Cedar swamps—along their edges and within their depths—are the main habitat of the Hessel's Hairstreak. Nearby flower patches, even in upland areas, can attract a few adults.

*Flight Dates:* Typically mid-May to mid-June; earliest 6 May 2001, latest 15 June 1997.

*Larval Food Plants:* Atlantic White Cedar is the host plant in the wild.

*Selected Nectar Plants:* Hessel's Hairstreaks avidly visit the flowers of blueberries and other heaths and have been noted several times on Yarrow.

*Identification:* see Juniper Hairstreak.

### **Juniper Hairstreak**

*Range:* The Juniper Hairstreak occurs in most Massachusetts counties, the exception being Nantucket.

*Status:* A dazzling green butterfly, the Juniper Hairstreak is a permanent resident, not uncommon in the proper habitat in eastern Massachusetts but scarce and local in the western half of the state, most often found there in the lower Connecticut Valley.

*Maximum:* 103 at Foxboro on 23 May 1991. This site has since been severely degraded.

*Habitat(s)*: Scrubby, shrubby, and open areas with Eastern Red Cedar growth, including old fields, powerline clearings, and hilltops.

*Flight Dates*: Two broods; typically May to mid-June and late July to early August; earliest 21 April 2002, latest 19 August 1999

*Larval Food Plants*: Eastern Red Cedar is the species food plant in Massachusetts.

*Selected Nectar Plants*: Flowers of Yarrow, milkweeds, cherries, and Meadowsweet are good places to search for the Juniper Hairstreak.

*Identification*: The Juniper Hairstreak and the Hessel's Hairstreak are two very similar butterflies. Separate them by habitat (dry red cedar areas for Juniper and white cedar swamps and vicinity for Hessel's) and by the submarginal white line of dashes on the underside of the forewings (straight in Juniper, top dash offset in Hessel's).

### **Early Hairstreak**

*Range*: In Massachusetts, the Early Hairstreak is resident and apparently restricted to Berkshire and Franklin Counties.

*Status*: Since the 19th century, the Early Hairstreak has been considered very rare and a great prize throughout its range. In Massachusetts, the great lepidopterist Samuel Scudder was moved to exclamatory poetry when he finally spotted one at Mt. Greylock. About 100 years after Scudder's discovery, in June 1988, Early Hairstreaks were again seen in Massachusetts, with individuals found in Florida and at Mt. Greylock. In the years since, this butterfly has been found regularly at Mt. Greylock and sporadically at several other locations. It has been seen in recent years in Bernardston, Florida, Heath, Lenox, Montague, Mount Greylock, Pittsfield, Rowe, Sheffield, and Williamstown. The greatest numbers observed each year are at Mt. Greylock.

*Maximum*: 29 at Mt. Greylock on 14 June 1993.

*Habitat(s)*: Roads, clearings, and other openings in northern hardwood forests.

*Flight Dates*: Two broods, typically(?) late May to mid-June and early July to early August; earliest 15 May 1999, latest 7 August 1987. Most sightings are of the first brood.

*Larval Food Plants*: American Beech and Beaked Hazel are apparently the two host plants.

*Selected Nectar Plants*: Early Hairstreaks will visit a variety of flowers. At Mt. Greylock, though, they are most often seen perched on and

walking along the roadside. Care must be taken to keep from trodding on them (seriously!).

*Identification:* The Early Hairstreak looks like no other Massachusetts butterfly when seen well. However, females are strikingly blue above and may be mistaken for a blue or azure with a casual glance.

### **Gray Hairstreak**

*Range:* The Gray Hairstreak occurs throughout Massachusetts.

*Status:* Locally common, the Gray Hairstreak appears to be more numerous in eastern Massachusetts than west of the Connecticut River Valley. It is unclear whether this butterfly is a resident or migratory species in Massachusetts. It is seldom common at a given locality two seasons or two years in a row.

*Maximum:* 27 at Wachusett Reservoir on 11 July 1999.

*Habitat(s):* Open areas of all descriptions can attract the Gray Hairstreak.

*Flight Dates:* Two broods, typically early May to mid-June and July through September; earliest 29 March 2002, latest 01 November 1999.

*Larval Food Plants:* Gray Hairstreaks feed on a bewildering array of plants. Bush clovers and tick trefoils are among the most commonly utilized larval food plants in the Commonwealth.

*Selected Nectar Plants:* All sorts of flowers are visited for nectar, though Gray Hairstreaks definitely choose favorites: All of the 27 Gray Hairstreaks at Wachusett Reservoir on 11 July 1999 were nectaring at Indian Hemp, whereas all 13 Gray Hairstreaks seen at Foxboro on 15 July 1991 were nectaring at Wild Indigo flowers.

*Identification:* The Gray Hairstreak, when fresh, should not be mistaken for any other butterfly. The median band below, black and narrowly white, stands out against the fine gray background. Gray, White M, and Oak Hairstreaks can look quite alike when worn, though, and should be carefully identified (see the latter two species for identification tips).

### **White M Hairstreak**

*Range:* The White M Hairstreak is known in Massachusetts primarily from the eastern counties but has been observed in Hampshire County and southern Berkshire County as well.

*Status:* The southerly White M Hairstreak is a relatively recent addition to the Massachusetts butterfly fauna. It was first noted in the state at Falmouth in 1979. Since then, it has been recorded on a rather remarkable 31 occasions. Most sightings involved single butterflies, but

two were seen at Penikese Island in 1989, two at Milford in 2000, two at Crane WMA in Falmouth in 2001, and up to 16 at Easton in 1992. This species certainly appears to be spreading northward. Since 1986 there have been good to excellent flight years (1992, 1999–2001) and years with no sightings (1986, 1990, 1994, 1996–1998), but at least one has been seen in 11 of the 17 years from 1986 to 2002. The colony that established itself in Easton in 1992 is the only known colony as yet discovered in the state.

*Maximum:* 16 at Easton on 8 August 1992.

*Habitat(s):* Fields, woodland edges, gardens, power- and gasline clearings, and other open areas can attract the White M Hairstreak.

*Flight Dates:* Almost all White M Hairstreaks in Massachusetts have been observed in either May, July, or August; earliest 1 May 1999 and 2001, latest 2 October 1999.

*Larval Food Plants:* Various oaks. No White M Hairstreak eggs, caterpillars, or chrysalises have been discovered in Massachusetts.

*Selected Nectar Plants:* The Easton gang of White M's was especially fond of Sweet Pepperbush flowers. This butterfly has also been seen at Common Milkweed, Meadowsweet, Narrow-leaved Mountain-mint, and asters.

*Identification:* The White M Hairstreak is our largest hairstreak and the only one besides the Early Hairstreak with blue on the upper wing surfaces. In fact, the blue is often intense and instantly identifies this hairstreak. The problem is that the bright blue coloration can only be seen when the butterfly takes flight or (to a limited degree) when the butterfly rubs its wings together while perched. Another excellent field mark is the single white spot on the leading (costal) edge of the hindwing below. The very similar Oak Hairstreak lacks this spot and the blue color above.

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## 2002 Fourth of July Butterfly Counts

by Tom Dodd

A summary of all counts shows that the average number of individuals observed per hour for this year was down by 22 percent when compared to the previous four years' results. It also appears that the eastern Massachusetts counts were worse than the western.

Of the top 10 most frequently seen species per party hour, only the Great Spangled Fritillary showed any real increase. Five species remained about the same, and the other four showed decreases. There were 320 party hours reported for all counts this year. Using the numbers below, you would expect, on average, to see a total of 1792 (320 x 5.6) Common Wood Nymphs from all of the counts this year.

Species	Average Individuals/ Hr	2002 Individuals/ Hr	2002 % Change from Average
Com. Wood Nymph	5.6	4.7	- 16
Clouded Sulphur	4.3	4.6	+ 9
Cabbage White	3.5	2.0	- 44
Pearl Crescent	3.0	2.7	- 11
Orange Sulphur	2.6	2.5	- 3
European Skipper	2.2	2.4	+ 9
Silver-spotted Skipper	2.0	1.0	- 49
Gr. Spangled Fritillary	1.4	1.8	+ 25
Dun Skipper	1.2	0.9	- 31
Monarch	1.2	0.2	- 86

*Note:* Baltimore Checkerspots are in the top 10 but were not included because the largest numbers in the past were from the Foxboro count (no count this year). Similarly, American Copper wasn't included because the North Worcester County count usually has large numbers, but this year's count was affected by weather influences (orange haze) from fires in Canada.

Hairstreak numbers were down, with the exception of Acadian, which was more common than previous years. Question Mark, Eastern Comma, Mourning Cloak, and American Lady were just about nonexistent. The witches (Dun Skipper, Little Glassywing, and N Broken Dash) were all down at least one-third from previous years.

*Key to the Count tables:* Count, abbreviation, and compiler are Northern Berkshire Cnty-**NBerk**-M Fairbrother | Central Berkshire Cnty-**CBerk**-T Tynning | Southern Berkshire Cnty-**SBerk**-R Laubach | Central Franklin Cnty-**CFran**-M Fairbrother | Northampton-**North**-d case | Northern Worcester Cnty-**NWorc**-G Howe | Concord-**Conc**-R Walton | North Essex-**NEssx**-B Speare | Blackstone Valley Corridor-**BVal**-T Dodd | Middleboro-**Middl**-K Holmes | Bristol Cnty-**Brist**-M Mello | Falmouth-**Falmo**-A Robb | Martha's Vineyard-**MVine**-M Pelikan.

## Fourth of July Count Results

Common Name	NBerk	CBerk	SBerk	CFran	North
Black Swallowtail	2	4	1	4	14
Eastern Tiger Swallowtail		3	23	26	8
Canadian Tiger Swallowtail	4				
Spicebush Swallowtail	1		1	23	12
Mustard White		1			
Cabbage White	48	84	71	43	117
Clouded Sulphur	88	340	302	106	266
Orange Sulphur	34	116	72	49	124
American Copper	1	15	4	33	53
Bog Copper				566	
Coral Hairstreak	6	5	2	16	1
Acadian Hairstreak		19			
Edwards' Hairstreak					
Banded Hairstreak			4	6	1
Hickory Hairstreak			1		
Striped Hairstreak		1	4	2	
Juniper Hairstreak					1
Gray Hairstreak					
Eastern Tailed Blue	1	8	13	94	11
'Summer' Spring Azure	2	6	1	3	2
Variegated Fritillary			1		
Great Spangled Fritillary	46	62	67	67	45
Aphrodite Fritillary	6	4	40	8	1
Atlantis Fritillary	6	5			
Silver-bordered Fritillary					17
Meadow Fritillary	6	2	6	7	
Pearl Crescent	1	141	11	2	471
Baltimore Checkerspot	25	38	5	61	10
Question Mark		1			2
Eastern Comma	1		1		1
Mourning Cloak		1			
American Lady	2	1			
Painted Lady					
Red Admiral		3	6		3
Common Buckeye					
White Admiral	5			2	
Red-spotted Admiral	5	3	1	4	2

NWorc	Conc	NEssx	BVal	Middl	Brist	Falmo	MVine
	1	3		4			4
26	19	6	14	2	1	5	5
10		6	15	2	11	13	9
4	42	29	28	117	4	4	32
17	61	47	80	42	2	18	117
15	39	27	56	14	28	13	216
413	13	21	50	1	1	6	82
181	8	7					16
	7		9		1		2
			2		2		
1	1		1				16
1	1	2	3				6
1							
1	1						2
							1
1			5			1	2
36	19	19	52	3	6	1	9
2	6	4	6		1		
					1		1
49	48	73	85	4	25		
13		1	5				
3	45	8			3		
29		102	22	19	47		3
	35	22	1				
		2		1			
	1		1			1	3
				1			
		2	1				2
		1	1	1			
4			1			1	2

Common Name	NBerk	CBerk	SBerk	CFran	North
Viceroy		1	1	5	14
Hackberry Emperor			1		
Tawny Emperor					1
Northern Pearly Eye	3	5	4	3	
Eyed Brown	33	6	10	12	7
Appalachian Brown		6	10		7
Little Wood Satyr	3			3	11
Common Ringlet	24		7	6	1
Common Wood Nymph	24	533	448		264
Monarch	5	9	4	2	12
Silver-spotted Skipper	3	21	17	48	48
Hoary Edge				6	2
Southern Cloudywing				9	
Northern Cloudywing	1			3	
Juvenal's Duskywing				1	
Horace's Duskywing					
Wild Indigo Duskywing					1
Common Sootywing					15
Least Skipper	22	7	12	1	2
European Skipper	168	10	5	114	2
Indian Skipper				1	
Peck's Skipper	34	126	32		2
Tawny-edged Skipper	3	1	5	6	
Crossline Skipper	6	15	3	9	5
Long Dash	12	7	2	3	
Northern Broken Dash	10	16	8	15	30
Little Glassywing	4	1	1	11	3
Delaware Skipper	12	1	12	10	11
Mulberry Wing		1	2		13
Hobomok Skipper	8	1	1	4	
Broad-winged Skipper					
Dion Skipper	5				
Black Dash				1	
Dun Skipper	17	75	26	11	78
<b>Total Species</b>	<b>40</b>	<b>42</b>	<b>43</b>	<b>43</b>	<b>42</b>
<b>Total Individuals</b>	<b>687</b>	<b>1705</b>	<b>1248</b>	<b>1406</b>	<b>1691</b>
<b>No. Participants</b>	<b>5</b>	<b>8</b>	<b>14</b>	<b>12</b>	<b>9</b>
<b>Party Hours</b>	<b>40</b>	<b>31</b>	<b>34</b>	<b>37</b>	<b>41</b>
<b>Count Date</b>	<b>7/10</b>	<b>7/21</b>	<b>7/13</b>	<b>7/6</b>	<b>7/20</b>



NWorc	Conc	NEssx	BVal	Middl	Brist	Falmo	MVine
4		1	2	1	5		
5	1		3	1			
	5	4	3				4
5	10	3	4		11	6	4
28	15	2	33	6		3	1
7							
2	18	13	99	3	60	16	28
2	4	8		3	1	2	2
45	15	38	31	2	21	6	22
3			1				
1	8						
1		1	1	1			
					4		
	2		2		8		
			5				
1	2		5				2
415	24	9	11	1		2	1
	1	1		1			
4				6	4	4	7
6	3	1	5				6
1						1	1
7	2	12	26		17	2	5
10	16	1	15		1	1	
22	9	8	31				
	6		8	3			
3							
		45	1		1		
1		8	18				
7		17	15		10	2	17
41	34	37	42	24	26	21	33
1387	488	554	757	239	276	108	630
21	14	11	15	1	2	7	7
57	11	-	44	6	6	14	-
7/7	7/6	7/15	7/13	7/27	7/21	7/14	7/13

## NABA 2002 Fifth Biennial Membership Meeting

by Carl Kamp

Oregon offers a spectacular and varied natural habitat from the Pacific Ocean across the Cascade Mountains and east to the high dry plains. Right in the middle of all of this natural wonder is the town of Bend, site of the fifth biennial NABA Members' Meeting from July 18 to 21, 2002. The Inn of the Seventh Mountain was home base for the meeting. West-facing rooms had great views of Mt. Bachelor, snow-capped even though it was July 18<sup>th</sup> and daytime temperatures were regularly in the 90s. Views were sometimes obscured later in the day from smoke caused by some of the many forest fires that were burning in and out of control.

NABA meetings are friendly and varied affairs, always with lots of things to do throughout the day. The 10 daily trips were scheduled to various areas around the Bend area and chosen for their habitat and butterfly diversity. Friday morning trips were followed by afternoon workshops, which covered topics such as California butterflies, Southwest butterflies, caterpillars, gardening, and digital photography. There were also evening programs each night, and they included "Oregon Butterfly Identification" by Neil Bjorkland, "America the Beautiful" by Oregon naturalist Jim Anderson, and Jeffrey Glassberg's "The Birth of Butterflying and the Role of NABA." On Sunday afternoon, the closing program was a delightful presentation by one of the fathers of contemporary butterflying, Robert Pyle, who profiled his new *Butterflies of Cascadia* book and related topics.

Most of the convention trips tallied 20 to 30 species of butterflies. The California Tortoiseshell, a close relative of Milbert's, was having a banner year, and we saw them on almost all trips. On our Sunday trip we found eggs, larvae, chrysalises, and adults. On the same trip we watched and photographed wasps laying eggs on a tortoiseshell caterpillar. Another remarkable aspect of the trip was watching a chrysalis doing what leader Rick Cech called the "shake dance." Both Rick and later Bob Pyle described the pupa's defense mechanism: They start to shake back and forth when they sense the presence of a wasp nearby. There were many chrysalises, and nearly everyone got to witness this startling behavior.

On Friday one of the trip leaders made effective use of his spotting scope. It was especially useful for species like hairstreaks that tended to

stay in one place, and we all got great looks at the Behr's Hairstreak on its host plant, the widespread Bitterbrush. Leader Jim Brock was close to doing back flips when he spotted a Johnson's Hairstreak, a species that he hadn't seen for 30 years. A little later *Butterfly Gardener* editor Rita Venable caught Alyce and me on film stalking the stunning Lorquin's Admiral, its white stripe reminiscent of the white striped form of our Red-spotted Admiral. It was a showstopper with its orange wing tips accentuating the dominant white stripes.

On Saturday we headed for Cone Peak where we were promised alpine meadows and many varieties of flowers in full bloom. With ideal weather and slightly cooler temperatures because of the altitude, we again joined Neil Bjorkland and a large contingent of conventioners. The floral displays were beyond words and included several species of orchids along the shaded woodland trails. When we reached the open meadows, there was still the namesake cone peak ahead of us, prompting Walter Bosse to exclaim, "I wouldn't go up there if there were 100 butterflies up there." Most of the rest of us echoed his sentiments, although several people did add a few species to the trip list by scaling the top of the cone.

Lilac-bordered Coppers were common and beautiful and particularly challenging to photograph. Late in the day we watched entranced as a Pale Swallowtail, in true "floats like a butterfly" style, patrolled an open area between some firs, speeding up only to drive off territorial offenders. Clodius Parnassians were another of the species that we never tired of seeing, and they were found at all of the higher elevations we visited.

Fritillaries were seen at all the locations but were especially difficult to identify, even for the experts. The Pacific Fritillary was perhaps the only one that was easy, as long as the undersides of the wings were visible. The many species of checkerspots and blues were also very challenging to identify, but with the help of photos and binoculars we managed to identify 45 butterfly species.

It was a great trip and a round of applause goes to meeting organizer Sue Anderson for her virtually single-handed efforts to make the convention a success.

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