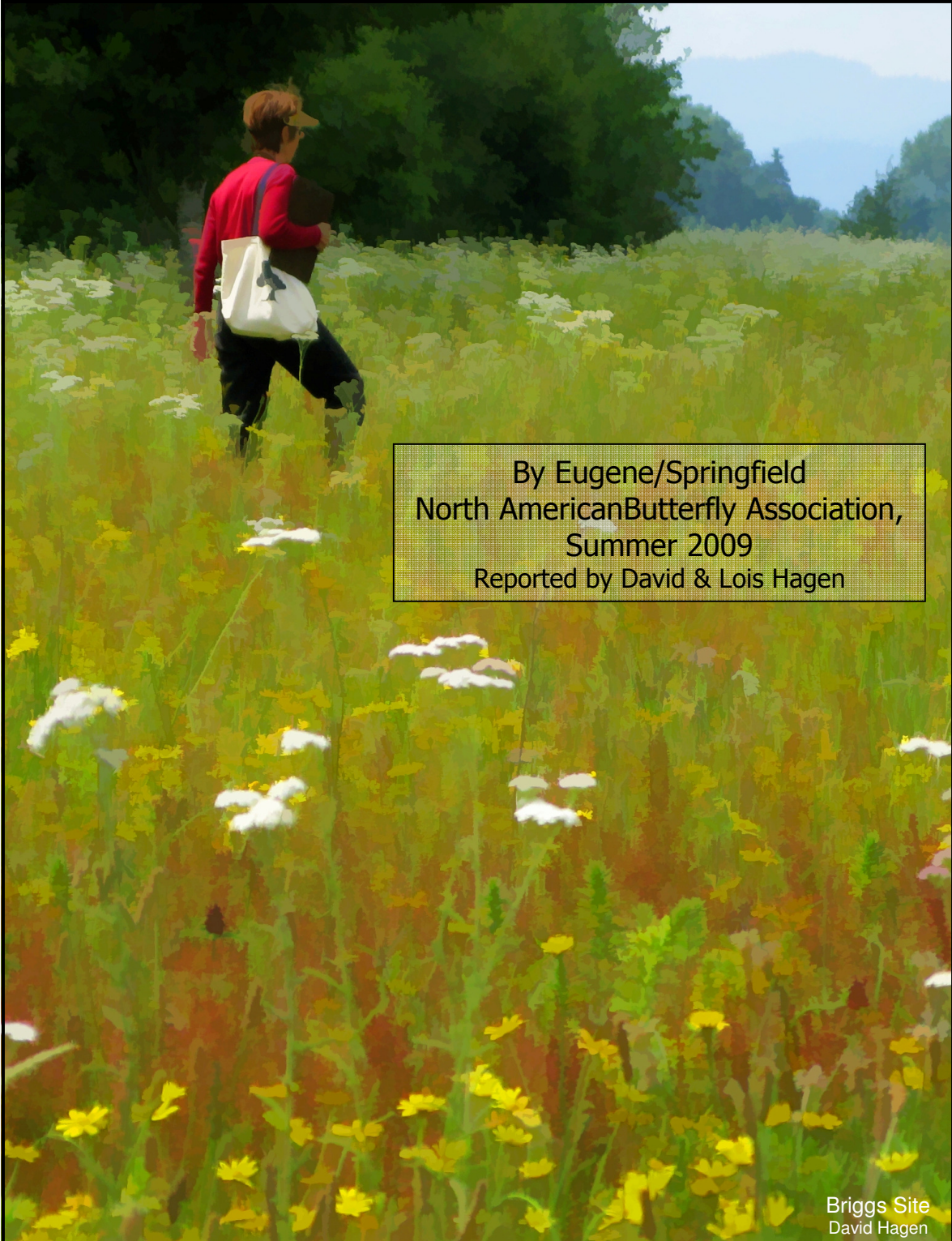


A Survey of Butterflies at Two West Eugene Wetlands Sites



By Eugene/Springfield
North American Butterfly Association,
Summer 2009
Reported by David & Lois Hagen

Briggs Site
David Hagen

A Survey of Butterflies at Two West Eugene Wetlands Sites

Background

Jason Nuckols of The Nature Conservancy contacted Eleanor Ryan, president of the Eugene/Springfield chapter of the North American Butterfly Association, to determine if any members would be interested in conducting monthly surveys of butterflies at two habitat restoration sites in the West Eugene Wetlands: Briggs Site, managed by TNC, and Dragonfly Bend, owned and managed by the city of Eugene. On May 6, 2009, six NABA members (Ellie Ryan, Lois Hagen, Donald Gudehus, Lori Humphreys, Ingrid Ford, and Helen Denzler) met with Jason Nuckols at The Nature Conservancy headquarters in west Eugene.



We decided to survey both sites twice a month from May through mid October. Jason marked the locations to be surveyed on a large map and provided small maps to use on site. The survey group agreed to identify butterfly species, to count the total number of butterflies observed at the two sites, and to comment on the general quality of the butterfly habitat. We also decided to photo-document butterfly sightings and changes in the habitat during the observation period. David Hagen set up appropriate tally sheets, Lois



Donald Gudehus

volunteered to be the recorder for each count day, and Donald, David, and Ingrid agreed to take pictures. The survey commenced on Friday, May 8, and continued on the second and fourth Fridays of each month through October 9.

Procedures

The first day participants established a route to use for the survey. Each day we recorded the weather, the number and names of the participants, and the time on site. The group recorded species counts on one tally sheet with separate columns for the Dragonfly Bend and Briggs Sites. We attempted to have more than one confirmation for each sighting, and we took numerous photos of both butterflies and site locations each survey day.

Results

Eleven volunteers surveyed for eleven days from May 8, 2009, through October 9, 2009, spending a total of 185 hours in the field (Table 4).

Approximately 1/3 of this time was spent at Briggs Site and 2/3 of at Dragonfly Bend. Including field time, driving time, photo work, and survey analysis, volunteers spent about 250 hours on this project. Surveyors observed a total of 19 species, 14 at Briggs Site and 16 at Dragonfly Bend (Tables 1, 2, and 3). Participants counted 1414 individual butterflies, 594 at Briggs Site and 820 at Dragonfly Bend. The top three butterflies observed were: Orange Sulphur (*Colias eurytheme*), Eastern Tailed-Blue (*Cupido comyntas*), and Ochre Ringlet (*Coenonympha tullia*). The top nectar plants were: gumweed, used by Orange Sulphurs, Sachem Skippers, and Common Wood-Nymphs; asters, used by Orange Sulphurs, Ochre Ringlets, Woodland Skippers, and Acmon Blues; and a clover/lotus, used by Eastern Tailed-Blues.



As the butterfly season progressed, we documented the waxing and waning of the various species at each site (Tables 1, 2, and 3 and Figures 1, 2, and 3). We also made the following general observations. Eastern Tailed-Blues were observed most often in wet areas, especially near the ponds at Dragonfly Bend. Cabbage Whites were on the edges closest to residential areas. Lorquin's Admirals were near the trees



along the southwestern side of Dragonfly Bend. And Common Checkered Skippers were seen only at Briggs Site, and there just in an area of low-lying vegetation. Late in the season we counted more butterflies at Dragonfly Bend, most likely due to a greater number of flowering asters and gumweeds at that site.



Future Plans

The Eugene/Springfield chapter of NABA hopes to continue this survey next year, 2010. We would like to begin in April and survey through mid-October. We intend to look specifically for the arrival of Fender's Blues and Great Coppers, which both occur in near-by locations in the West Eugene Wetlands. One of the survey observers reported seeing a Great Copper this year, but we were unable to verify this sighting. The habitat restoration at both sites is very impressive. We have every reason to expect future sightings of some species that we did not observe this year. In addition to butterfly observations, we will make an effort to increase our knowledge of the vegetation used both as host and nectar plants.

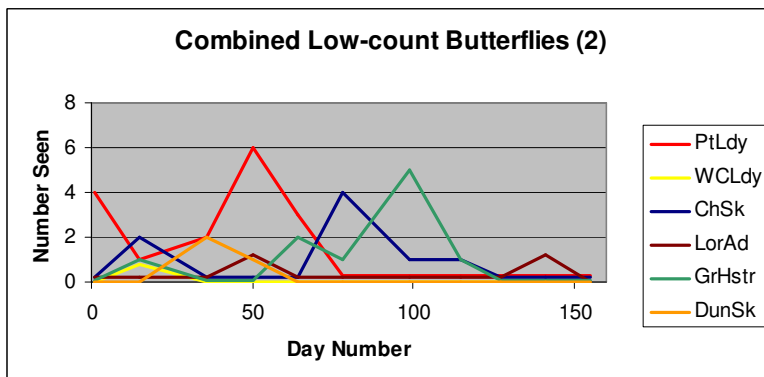
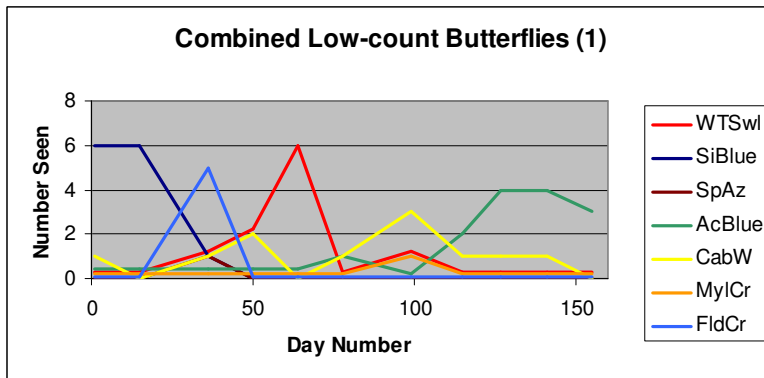
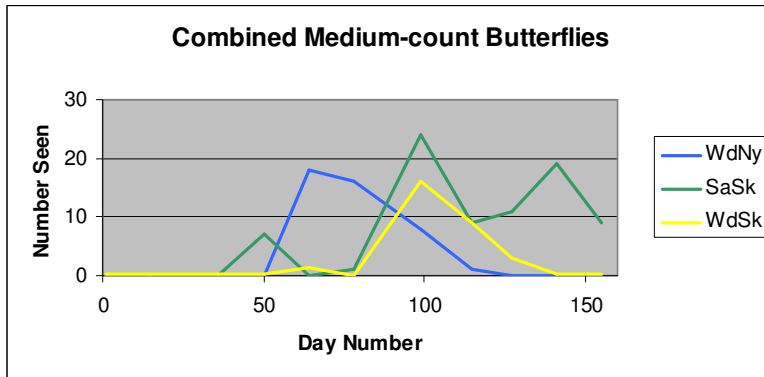
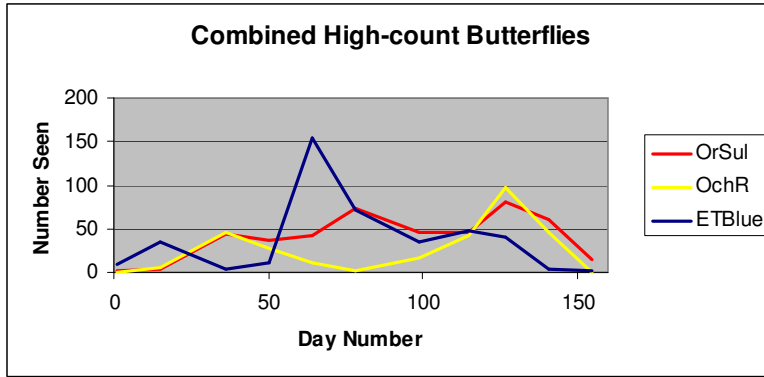


Table 1. Combined-Survey Results

	Total species no:											19
Day number:	1	15	36	50	64	78	99	115	127	141	155	
Common Name	5/8	5/22	6/12	6/26	7/10	7/24	8/14	8/30	9/11	9/25	10/9	Indiv. tot.
Western Tiger Swallowtail	0	0	1	2	6	0	1	0	0	0	0	10
Cabbage White	1	0	1	2	0	1	3	1	1	1	0	11
Orange Sulphur	1	3	44	37	42	73	45	46	80	61	15	447
Great Copper	0	0	0	0	0	(1)*	0	0	0	0	0	0
Gray Hairstreak	0	1	0	0	2	1	5	1	0	0	0	10
Eastern Tailed-blue	9	34	3	11	155	71	34	47	40	3	1	408
Spring Azure	0	0	1	0	0	0	0	0	0	0	0	1
Silvery Blue	6	6	1	0	0	0	0	0	0	0	0	13
Boisduval's Blue (& Fender's)	0	0	0	0	0	0	0	0	0	0	0	0
Acmon Blue	0	0	0	0	0	1	0	2	4	4	3	14
Field Crescent	0	0	5	0	0	0	0	0	0	0	0	5
Mylitta Crescent	0	0	0	0	0	0	1	0	0	0	0	1
Painted Lady	4	1	2	6	3	0	0	0	0	0	0	16
West Coast Lady	0	1	0	0	0	0	0	0	0	0	0	1
Lorquin's Admiral	0	0	0	1	0	0	0	0	0	1	0	2
Ochre (Common) Ringlet	0	5	45	28	11	2	16	42	98	45	19	311
Common Wood-Nymph	0	0	0	0	18	16	8	1	0	0	0	43
Common Checkered-Skipper	0	2	0	0	0	4	1	1	0	0	0	8
Sachem Skipper	0	0	0	7	0	1	24	9	11	19	9	80
Woodland Skipper	0	0	0	0	1	1	16	9	3	0	0	30
Dun Skipper	0	0	2	1	0	0	0	0	0	0	0	3
Individual totals	21	53	105	95	238	171	154	159	237	134	47	1414
Surveyors	7	8	4	4	5	5	7	5	4	5	4	
Field hours	3.50	3.00	3.00	3.00	3.00	3.25	3.50	4.00	3.00	3.00	2.50	
Volunteer hours †	4.00	3.50	3.50	3.50	3.50	3.75	4.00	4.50	3.50	3.50	3.00	
Field-person-hours	24.50	24.00	12.00	12.00	15.00	16.25	24.50	20.00	12.00	15.00	10.00	185.25
Volunteer-person-hours	28.00	28.00	14.00	14.00	17.50	18.75	28.00	22.50	14.00	17.50	12.00	214.25
Extra vol. person-hours (prep.)	15.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	20.25	252.00
Weather notes ‡	c/w/s	w/b/s	w/c/p	w/b/s	w/c/s	w/b/s	w/b/p	w/c/p	h/c/s	w/b/s	c/b/s	

Notes:	
* Great copper sighting?	One of us possibly spotted a Great copper butterfly at Dragonfly Bend. The habitat there was perfect (gum weed & willow-leaf dock). However, since the sighting was not corroborated by others and not photographed, we decided not to count it officially. Great coppers are a rare species for Eugene, but have been seen nearby in the West Eugene Wetlands (at Tsal Luk-wah and at Stewart Pond).
† Volunteer hours	These include hours in the field and travel time to and from the site. Travel time was estimated at 15 minutes each way, and there was very little car-pooling so each person got 30 minutes added. "Extra" volunteer hours includes meeting time, prep time, report writing, etc. sometimes before or after the date. Time should be credited about 2/3 to Dragonfly Bend and 1/3 to Briggs Site.
‡ Weather notes	This is encoded as Temperature/Wind/Sky using the following abbreviations: Temperature: h = hot (>80F), w = warm (65-80F), c = cool (<65F) Wind: c = calm (0-5mph), b = breezy (5-15mph), w = windy (15-25mph), s = strong (>25mph) Sky: s = sunny, p = partly cloudy, c = cloudy, d = drizzly, r = rainy

Figure 1. Combined-Survey Graphs



Notes:

Day 1 = 5/8/09
 Day 50 = 6/26/09
 Day 100 = 8/15/09
 Day 150 = 10/4/09

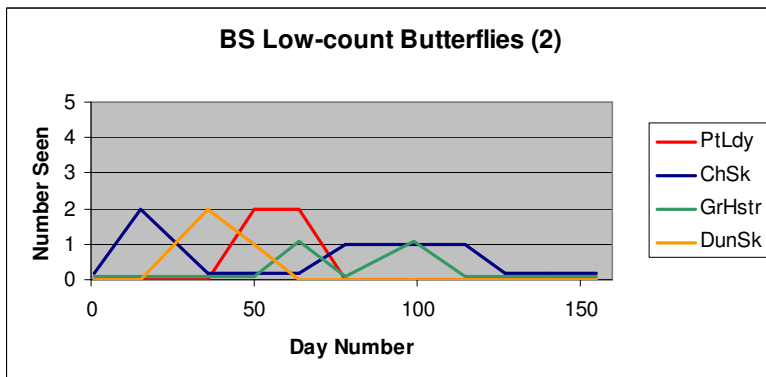
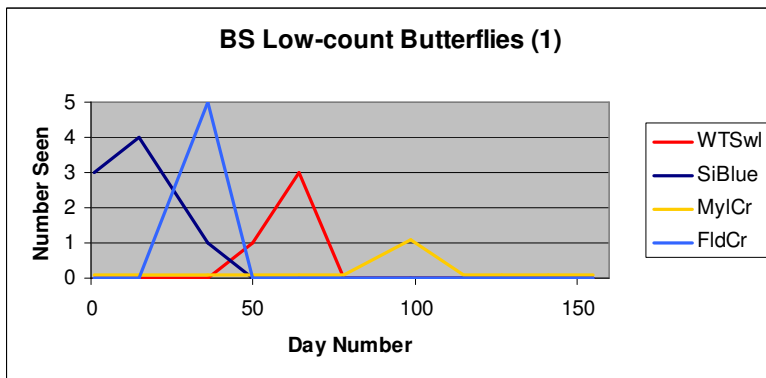
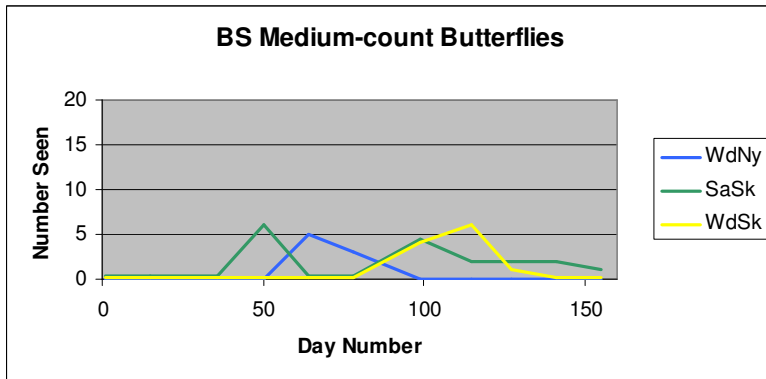
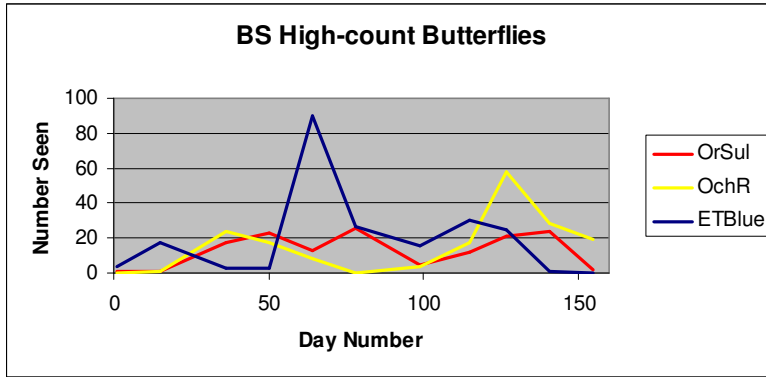
5/1/09 = Day -6
 6/1/09 = Day 24
 7/1/09 = Day 55
 8/1/09 = Day 86
 9/1/09 = Day 117
 10/1/09 = Day 147

OrSul = Orange sulfur
 OchR = Ochre (common) ringlet
 ETBlue = Eastern tailed blue
 WdNy = Common wood nymph
 SaSk = Sachem skipper
 WdSk = Woodland skipper
 WTSwl = Western tiger swallowtail
 SiBlue = Silvery blue
 SpAz = Spring azure (blue)
 AcBlue = Acmon blue
 CabW = Cabbage white
 MylCr = Mylitta crescent
 FldCr = Field crescent
 PtLdy = Painted lady
 WCLdy = West coast lady
 ChSk = Common checkered skipper
 LorAd = Lorquin's Admiral
 GrHstr = Gray hairstreak
 DunSk = Dun skipper

Table 2. Briggs Site Survey Results

	Total species no: 14											
Day number:	1	15	36	50	64	78	99	115	127	141	115	
Common Name	5/8	5/22	6/12	6/26	7/10	7/24	8/14	8/30	9/11	9/25	10/9	Indiv. tot.
Western Tiger Swallowtail	0	0	0	1	3	0	0	0	0	0	0	4
Cabbage White	0	0	0	0	0	0	0	0	0	0	0	0
Orange Sulphur	0	0	17	23	13	26	5	12	21	24	2	143
Great Copper	0	0	0	0	0	0	0	0	0	0	0	0
Gray Hairstreak	0	0	0	0	1	0	1	0	0	0	0	2
Eastern Tailed-blue	4	17	3	3	90	27	16	30	25	1	0	216
Spring Azure	0	0	0	0	0	0	0	0	0	0	0	0
Silvery Blue	3	4	1	0	0	0	0	0	0	0	0	8
Boisduval's Blue (& Fender's)	0	0	0	0	0	0	0	0	0	0	0	0
Acmon Blue	0	0	0	0	0	0	0	0	0	0	0	0
Field Crescent	0	0	5	0	0	0	0	0	0	0	0	5
Mylitta Crescent	0	0	0	0	0	0	1	0	0	0	0	1
Painted Lady	0	0	0	2	2	0	0	0	0	0	0	4
West Coast Lady	0	0	0	0	0	0	0	0	0	0	0	0
Lorquin's Admiral	0	0	0	0	0	0	0	0	0	0	0	0
Ochre (Common) Ringlet	0	1	24	17	8	0	4	17	58	28	10	167
Common Wood-Nymph	0	0	0	0	5	3	0	0	0	0	0	8
Common Checkered-Skipper	0	2	0	0	0	1	1	1	0	0	0	5
Sachem Skipper	0	0	0	6	0	0	4	2	2	2	1	17
Woodland Skipper	0	0	0	0	0	0	4	6	1	0	0	11
Dun Skipper	0	0	2	1	0	0	0	0	0	0	0	3
Indiv. total:	7	24	52	53	122	57	36	68	107	55	13	594

Figure 2. Briggs Site Survey Graphs



Notes:

Day 1 = 5/8/09
 Day 50 = 6/26/09
 Day 100 = 8/15/09
 Day 150 = 10/4/09

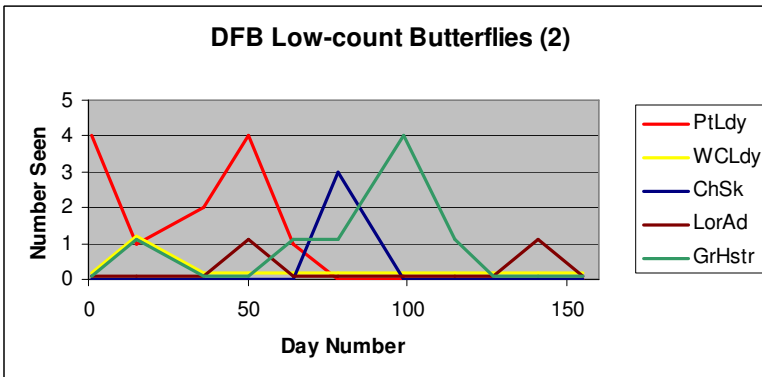
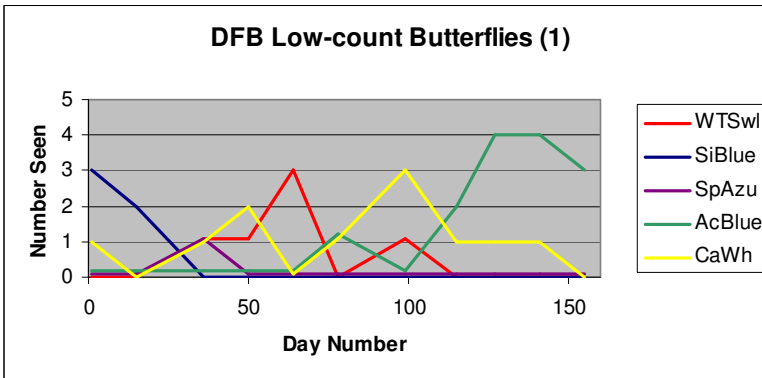
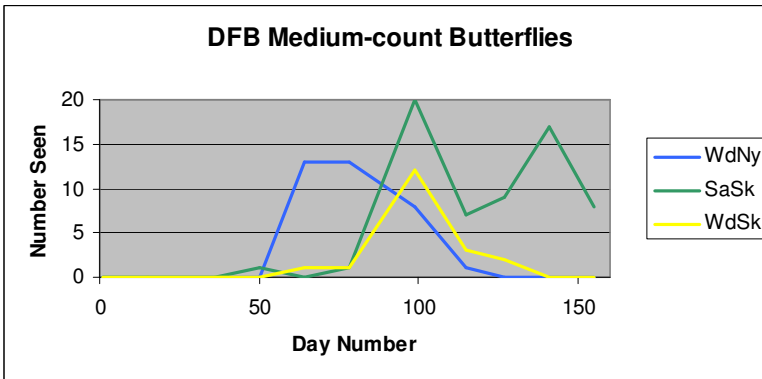
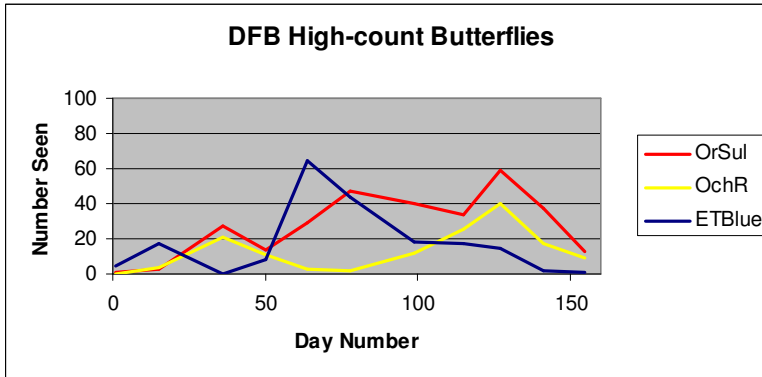
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 MylCr = Mylitta crescent
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 PtLdy = Painted lady
 ChSk = Common checkered skipper
 GrHstr = Gray hairstreak
 DunSk = Dun skipper

Table 3. Dragonfly Bend Survey Results

Day number:	Total species no: 16											Indiv. tot.
	1	15	36	50	64	78	99	115	127	141	155	
Common Name	5/8	5/22	6/12	6/26	7/10	7/24	8/14	8/30	9/11	9/25	10/9	
Western Tiger Swallowtail	0	0	1	1	3	0	1	0	0	0	0	6
Cabbage White	1	0	1	2	0	1	3	1	1	1	0	11
Orange Sulphur	1	3	27	14	29	47	40	34	59	37	13	304
Great Copper	0	0	0	0	0	(1)*	0	0	0	0	0	0
Gray Hairstreak	0	1	0	0	1	1	4	1	0	0	0	8
Eastern Tailed-blue	5	17	0	8	65	44	18	17	15	2	1	192
Spring Azure	0	0	1	0	0	0	0	0	0	0	0	1
Silvery Blue	3	2	0	0	0	0	0	0	0	0	0	5
Boisduval's Blue (& Fender's)	0	0	0	0	0	0	0	0	0	0	0	0
Acmon Blue	0	0	0	0	0	1	0	2	4	4	3	14
Field Crescent	0	0	0	0	0	0	0	0	0	0	0	0
Mylitta Crescent	0	0	0	0	0	0	0	0	0	0	0	0
Painted Lady	4	1	2	4	1	0	0	0	0	0	0	12
West Coast Lady	0	1	0	0	0	0	0	0	0	0	0	1
Lorquin's Admiral	0	0	0	1	0	0	0	0	0	1	0	2
Ochre (Common) Ringlet	0	4	21	11	3	2	12	25	40	17	9	144
Common Wood-Nymph	0	0	0	0	13	13	8	1	0	0	0	35
Common Checkered-Skipper	0	0	0	0	0	3	0	0	0	0	0	3
Sachem Skipper	0	0	0	1	0	1	20	7	9	17	8	63
Woodland Skipper	0	0	0	0	1	1	12	3	2	0	0	19
Dun Skipper	0	0	0	0	0	0	0	0	0	0	0	0
Indiv. total:	14	29	53	42	116	114	118	91	130	79	34	820

Figure 3. Dragonfly Bend



Notes:

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Table 4. Volunteers & Volunteer Hours

Surveyor Name		5/8	5/22	6/12	6/26	7/10	7/24	8/14	8/30	9/11	9/25	10/9	Indiv. tot.
David Hagen	Field hrs:	3.50	3.00	3.00	3.00	3.00	3.25	3.50	4.00	3.00	3.00	2.50	34.75
	Vol. hrs:	7.25	3.75	3.75	3.75	3.75	4.00	4.25	4.75	3.75	3.75	18.25	61.00
Lois Hagen	Field hrs:	3.50	3.00	3.00	3.00	3.00	3.25	3.50	4.00	3.00	3.00	2.50	34.75
	Vol. hrs:	6.00	3.50	3.50	3.50	3.50	3.75	4.00	4.50	3.50	3.50	8.00	47.25
Ingrid Ford	Field hrs:	3.50	3.00	3.00	3.00	3.00	3.25		4.00	3.00	3.00	2.50	31.25
	Vol. hrs:	6.00	3.50	3.50	3.50	3.50	3.75		4.50	3.50	3.50	3.00	38.25
Lori Humphreys	Field hrs:	3.50	3.00	3.00	3.00	3.00	3.25	3.50		3.00	3.00	2.50	30.75
	Vol. hrs:	6.00	3.50	3.50	3.50	3.50	3.75	4.00		3.50	3.50	3.00	37.75
Donald Gudehus	Field hrs:	3.50	3.00					3.50	4.00				14.00
	Vol. hrs:	6.00	3.50					4.00	4.50				18.00
Ellie Ryan	Field hrs:	3.50	3.00					3.50					10.00
	Vol. hrs:	6.00	3.50					4.00					13.50
Rick Ahrens	Field hrs:						3.25	3.50	4.00				10.75
	Vol. hrs:						3.75	4.00	4.50				12.25
Helen Denzler	Field hrs:	3.50	3.00			3.00							9.50
	Vol. hrs:	6.00	3.50			3.50							13.00
Thea Evenstad	Field hrs:							3.50					3.50
	Vol. hrs:							4.00					4.00
John Ryan	Field hrs:		3.00										3.00
	Vol. hrs:		3.50										3.50
Paula Graff	Field hrs:										3.00		3.00
	Vol. hrs:										3.50		3.50
												Total field hrs:	185.25
												Total vol. hrs: †	252.00
Notes:													
† Volunteer hours		These include hours in the field and travel time to and from the site. Travel time was estimated at 15 minutes each way, and there was very little car-pooling so each person has 30 minutes added.											
		5/8/09 volunteer hours include prep, travel, and meeting times occurring before that date.											
		10/9/09 volunteer hours include report-writing times occurring after that date.											
		Time should be apportioned about 2/3 to Dragonfly Bend and about 1/3 to Briggs Site.											