

RESULTS OF THE 2005 INTERNATIONAL BUTTERFLY COUNTS IN SASKATCHEWAN

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The Xerxes Society began a program of organized butterfly counts in 1974. These counts were turned over to the North American Butterfly Association to administer beginning in 1993. Held within the month before or after July 4, they are referred to as Fourth of July Counts (4JC) in the United States and First of July Counts (1JC) in Canada. The first of these counts was held in Saskatchewan in 1986 and the longest running count, the one at Fort Qu'Appelle, has been conducted annually since 1990. Modeled on the Christmas Bird Count, each butterfly count is held within a 24 km circle and all individuals and species seen on

count day are recorded. Unlike the Christmas Bird Count, the butterfly count day may be rescheduled if the weather is unfavorable for the target species; butterflies simply don't fly when the weather is rainy or cold.

In 2005, annual butterfly counts were conducted at eight locations in Saskatchewan: Dundurn Military Reserve, Fort Qu'Appelle, Nisbet Forest, Regina, Saskatoon, Preeceville, Waskesiu River and Woodpile Creek. This is fewer counts than in the past few years: 14 locations in 2004 and 18 in 2003. The reduced number of counts resulted in a total of 57 species counted

in 2005 as compared to 79 in 2004 and 84 in 2003. The total number of butterflies counted was 6961, however, compared to 4942 in 2004 and 9634 in 2003. Butterflies per party-hour averaged 86 on the eight counts, which was up from previous

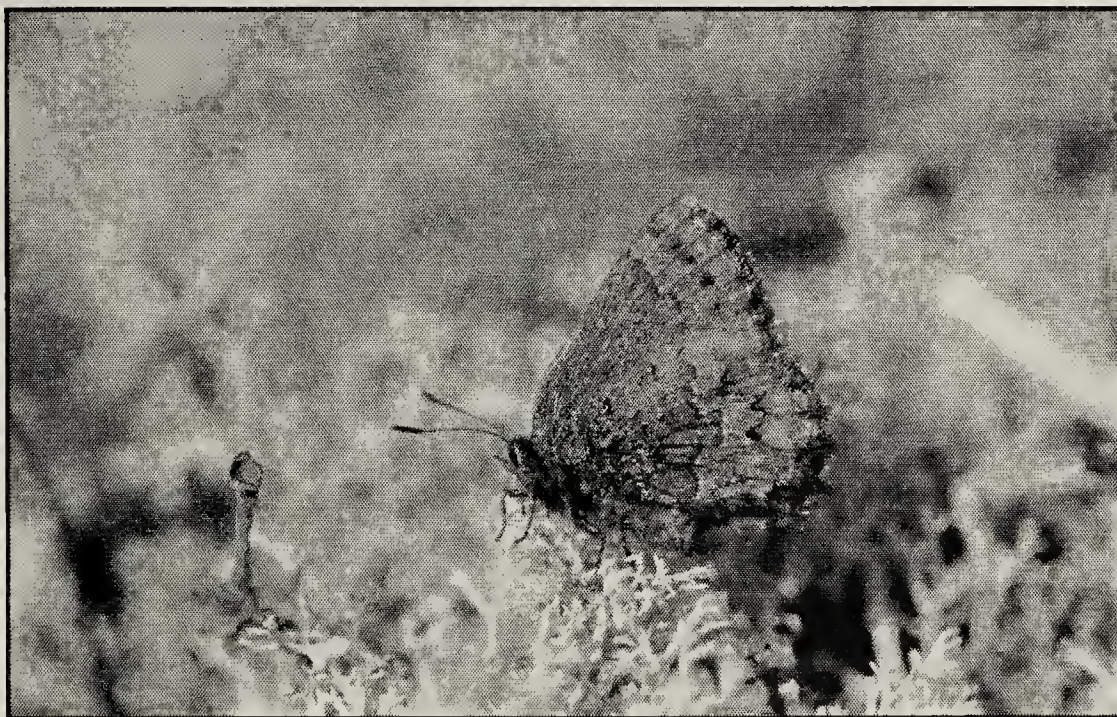


Figure 1. Eastern Pine Elfin on Waskesiu River count, 8 June 2005
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averages of 45 in 2004 and 68 in 2003. However, if the single count of 4788 Painted Ladies at Regina is omitted from these calculations, the average butterflies per party-hour for 2005 is only 27.

Participation has remained high in the last few years, with 33 different observers participating in the eight counts in 2005. They clocked 81 party-hours and covered 129 km on foot and an additional 135 km by vehicle. Count conditions ranged from a low temperature of 11°C at Waskesiu River in the morning to highs of 32°C at Waskesiu River in the afternoon and at Woodpile Creek. (Table 1) The high temperature at Woodpile Creek was also accompanied by a mosquito flight that was comparable only to that of the northern tundra!

The number of species per count ranged from 10 at Woodpile Creek to 25 at Fort Qu'Appelle. Species totals were generally lower than average for the second year in a row for counts with at least a five-year history. This may reflect the cool moist conditions during these two years. For the eight counts conducted in all three years from 2003 to 2005, the species totals have ranged from a low of 6 at Woodpile Creek in 2004 to a high of 35 at Preeceville in 2003 (which had 23 this year).

In 2005, the number of *individual* butterflies per count ranged from 36 at Woodpile Creek to 5034 at Regina. For the eight counts conducted in all

three years from 2003 to 2005, the total number of butterflies has ranged from as low as 8 at Woodpile Creek in 2004 to the 5034 reported from Regina in 2005.

Painted Ladies migrated into the province in large numbers in early to mid-June. Early counts recorded few if any of this species: Waskesiu River, on June 8, recorded one Painted Lady while Dundurn did not have any on June 13. All other counts recorded Painted Ladies including exceptional counts of 4788 at Regina on June 22 and 473 at Saskatoon on July 9. (Table 2)

Other unusually high counts of species included 6 Christina Sulphurs at Nisbet Forest, 205 Spring Azures at Waskesiu River and 113 Common Ringlets at Regina. A common butterfly not recorded on the 2005 counts was the Meadow Fritillary. There were also no Gray Commas.



Figure 2. *Dorcas Copper* on host plant, *Shrubby Cinquefoil*. Nisbet Forest, 6 August 2005

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There were no provincially rare species recorded this year, although the Northern Blue at Fort Qu'Appelle is the first 1JC record, perhaps indicating that Ron Hooper is one of the few

people with sufficient expertise to identify this challenging species! Four Dorcas Coppers at Nisbet Forest were also a good find. (Figures 2 and 3).



Figure 3. *Dorcas Copper*, female, dorsal surface. Nisbet Forest, 6 August 2005
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Table 1. 1JC Statistics - Saskatchewan 2005

1JC name	1JC date	no. of spp.	no. of b'flies	b'flies/ph	no. of obs.	no. of ph	ph on foot	km on foot	km by car	time	% sun am:pm	temp. deg.C	wind km/hr
WaR	Jun 8	17	316	32.5	3	9.7	9.7	15	0	1030-1740	0:80	11-32	light
Dun	Jun 13	12	119	31	1	3.8	3.8	12	0	0920-1440	90:90	19-25	16
Reg	Jun 22	15	5034	479	8	10.5	9.51	14.5	13	0830-1500	100:100	22-31	8-32
WoC	Jun 22	10	36	8.2	1	4.4	4.4	20	0	0925-1800	100:100	26-32	16
FtQ	Jun 25	25	193	32	2	6	5	8	56	0930-1600	90:75	12-19.5	24-40
Sto	Jul 9	23	677	25	12	27.4	17.4	24	46	0930-1735	75:90	23-28	14-25
Pre	Jul 16	23	395	33	4	12	11	12.8	20	0915-1700	25:75	17-25	32-48
NiF	Aug 3	17	191	27	2	7	7	23	0	1000-1700	50:50	15-25	15-30
totals	8 1JCs	57	6961	86	33	80.8	67.8	129.3	135	0830-1806*		11-33*	5-48*

Abbreviations used in the table: WaR = Waskesiu River, Dun = Dundurn Military Reserve, Reg = Regina, FtQ = Fort Qu'Appelle, WoC = Woodpile Creek, Sto = Saskatoon, NiF = Nisbet Forest, Pre = Preeceville, obs. = observers, ph = party hours, spp. = species, *extremes for the year.

Table 2. IJC results - Saskatchewan 2005

SPECIES NAME	WaR*	Dun	Reg	WoC	FtQ	Sto	Pre	NiF	Totals
	8 JN	13 JN	22 JN	22 JN	25 JN	9 JY	16 JY	3 AU	
Silver-spotted Skipper						1			1
Northern Cloudywing	2				1				3
<i>Unident. Duskywing</i>	9								9
Dreamy Duskywing	22								22
Juvenal's Duskywing									
Afranius Duskywing									
Persius Duskywing	5	3							8
Grizzled Skipper									
C. Checkered Skipper			2	6	1	4			13
Common Sootywing									
<i>Unident. Skipper</i>									
Arctic Skipper	1					4			5
Least Skipper									
Garita Skipperling			2	5	4	1	5		17
Uncas Skipper				5					5
C. Branded Skipper									
Plains Skipper									
Dakota Skipper									
Nevada Skipper									
Peck's Skipper						1			1
Draco Skipper									
Tawny-edged Skipper									
Long Dash Skipper					1	4	2	1	8
Rhesus Skipper									
Delaware Skipper									
Woodland Skipper									
Hobomok Skipper					3				3
Dun Skipper								3	3
Dusted Skipper									
Oslar's Roadside Skipper									
Com. Roadside Skipper		1			4				5
Old World Sw'tail (Dods)									
Old World Sw'tail (Huds)									
Anise Swallowtail									
<i>Anisel Old World Sw'tail</i>									
Can. Tiger Swallowtail	3	4			4				11
<i>Unident. White</i>			6				4		10
Western White		4	14	1		2			21
Margined White									
Mustard White	2							2	4
Cabbage White			4		3	106	45	1	159
Large Marble									

	WaR	Dun	Reg	WoC	FtQ	Sto	Pre	NiF	totals
Olympia Marble									
<i>Unident. Sulphur</i>								5	5
Clouded Sulphur		9	25	2	7	9	4	9	65
Orange Sulphur									
Q. Alexandra's Sulphur									
Christina Sulphur							6		6
Giant Sulphur									
Pink-edged Sulphur									
Harvester									
<i>Unident. Copper</i>							1		1
Gray Copper									
Bronze Copper									
Ruddy Copper									
Dorcas Copper								4	4
Purplish Copper		1	24						25
Acadian Hairstreak									
Coral Hairstreak					1			1	2
Edwards' Hairstreak									
Banded Hairstreak									
Striped Hairstreak							1		1
<i>Unident. Elfin</i>	2								2
Brown Elfin	10								10
Hoary Elfin									
Eastern Pine Elfin	3								3
Western Pine Elfin									
Gray Hairstreak									
<i>Unident. Blue</i>	19	1	5			2	3		30
West. Tailed Blue	3	3			10	1	14		31
Spring Azure	205								205
Summer Azure									
Rocky Mt. Dotted Blue									
Arrowhead Blue									
Silvery Blue	10	2	45		7	4	4		72
Northern Blue					1				1
Melissa Blue		3	4		5	1			13
Greenish Blue		1	5		7	4	6		23
Boisduval's Blue									
Lupine (Acmon) Blue									
Prairie Arctic Blue									
<i>Unident. large Fritillary</i>						6	9	5	20
Variiegated Fritillary						1	1	1	3
Great Spangled Frit.					1	5		1	7

		WaR	Dun	Reg	WoC	FtQ	Sto	Pre	NiF	totals
Aphrodite	Fritillary							1		1
Edwards'	Fritillary									
Zerene	Fritillary									
Callippe	Fritillary				1	2	3	1		7
Atlantis	Fritillary									
Northwestern	Fritillary				2	20	10	3	8	43
Mormon	Fritillary									
<i>Unident. small</i>	<i>Fritillary</i>	1							20	21
Bog	Fritillary									
Silver-bordered	Fritillary							3	1	4
Meadow	Fritillary									
Frigga	Fritillary									
Freija	Fritillary	9								9
Arctic	Fritillary								23	23
Gorgone	Checkerspot									
Sagebrush	Checkerspot									
<i>Unident. Crescent</i>							4	10	1	15
Pearl	Crescent						2		1	3
Northern	Crescent					7	4	34		45
Tawny	Crescent					3		17		20
Variable	Checkerspot									
<i>Unident. Comma</i>		2							1	3
Eastern	Comma									
Satyr	Comma	1								1
Green	Comma	2								2
Hoary	Comma									
Gray	Comma									
Compton	Tortoiseshell									
Mourning	Cloak	1					1			2
Milbert's	Tortoiseshell					1	2	1		4
Painted	Lady	1		4788	4	82	473	23	18	5389
Red	Admiral			2		3				5
White	Admiral						18	20	1	39
Viceroy										
Northern	Pearly-Eye							5		5
Eyed	Brown									
Little	Wood-Satyr									
Common	Ringlet		73	113	3	11	8	2		210
<i>Unident. Wood-Nymph</i>										
Com. Wood-Nymph								170	84	254
Small Wood-Nymph										
<i>Unident. Alpine</i>										
Taiga	Alpine									

	WaR	Dun	Reg	WoC	FtQ	Sto	Pre	NiF	totals
Red-disked Alpine Common Alpine Ridings' Satyr			1	7					1 7
<i>Unident. Arctic</i> Macoun's Arctic Uhler's Arctic	3	14	4						3 18
Jutta Arctic Monarch <i>Unident. butterfly</i>			1						1
Total number of species	17	12	15	10	25	23	23	17	57
Total number of butterflies Count location	316 WaR	119 Dun	5045 Reg	36 WoC	193 FtQ	677 Sto	395 Pre	191 NiF	6972

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Figure 4. Mustard White on Waskesiu River count, 8 June 2005

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