Welcome to the ALG newsletter, a compendium of news, reports, and items of interest related to lepidopterans and lepidopterists in Alberta. The newsletter will be produced twice per year, in spring and late fall.



## Flutterings in the Fall: Late Season Leps, ALG-Style by John Acorn

I cling to the butterfly season, each and every year. The first papilionoids of spring bring me happiness and hope, but the last have a stronger effect on my emotions—"loss aversion" as the psychologists call it. So let me tell you about my annual quest for the last butterfly of the year, and the joys of sharing it with others.

When I was a teenage bug nerd, the last good bugs (you know, butterflies and tiger beetles) typically held on into the second week of October. I was therefore thrilled when I encountered a Clouded Sulphur at the Wagner Natural Area on October 21, 1997, and wrote in my field notes "the latest Alberta butterfly I have ever seen."

The following year, 1998, the season continued for more than a week past that, and with great self-indulgent quasi-Victorian silliness, I wrote in my notes "With autumnality breathing heavier each morn", the dawn brought with it an admixture of sunshine, frost, and dread. Yet there, at the Devonian sandbank [a south-facing hillside north of Devon], 2:30 p.m., a single ineluctable *Colias* plied the air. Groundward, the fauna has dissipated, and only the odd *Formica podzolica* was apparent on the psammosubstratum, one hauling the remains of a putatively frost-killed opilione. Such glory surely cannot last. Bird et al. tell tales of *Colias philodice*, happily on the wing one magnificent November 22, but any right-thinking person must assume this to be a veiled reference to the Bible-slash-Banana Belt, that sub-deserticolous corner of the province we call "the southeast." (The good Professor Sperling corrects me, with the phrase "Bragg Creek.") Contrastingly, here in the Edmontonian realm, one feels a palpable sense of neo-historicity. Records are being set, good colleagues-- surely they are. A November sulphur-- such Heady Dreams, my friends, are almost within our grasp..."

Such, however, was not to be the case. In 1999 and 2000, I was away during late October, as a speaker for the Texas Butterfly Festival (an event that was, I'll admit, further over the top than even ALG has been able to muster). In 2001 our son Benny was born on October 30, so I stayed close to home waiting for that event. I then returned to the Texas Butterfly Festival in 2002, spoke at naturalist gatherings in Florida and West Virginia in 2003, went back to Texas in 2004 and 2005, after which the Texas event more or less imploded as a consequence of local politics. My notes give no indication of where I was in the fall of 2006, but on October 14, 2007 my sons and I enjoyed a lovely 20°C visit to Gull Lake, during which we saw both a Clouded Sulphur and a Milbert's Tortoiseshell. On October 23, 2008, in Edmonton, I had "A nice warm day, with a Compton Tortoiseshell flying around." The next day was perhaps four degrees cooler, and despite an afternoon search, I couldn't find a butterfly on Hallowe'en. However, for the first time ALG members began reporting nymphs in their hibernation spots. Christie Jaeger found a Milbert's Tortoiseshell in a stairwell on the University of Alberta campus, and Laura Stevens reported, "Compton Tortoiseshell on the inside of our window today, November 5, alive and well. We live in North Cooking Lake. Unfortunately, our cat caught and ate it." In a second posting she added, "Does it count that we only saw it inside?" In a hibernating sort of way, I think it does.

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At this point, I was starting to see some patterns in those last butterfly records. First, they are either nymphaline hibernators (Mourning Cloaks or tortoiseshells) or soon-to-be-dead Clouded Sulphurs. The nymphs have mostly tucked in for the winter, but the sulphurs have nothing to lose staying active as long as they can (they are continuous breeders and the overwintering generation spends the winter as pupae).

Their flights are short, and they spend most of their time basking on the ground, not sipping at what look like withered flowers. My prediction used to be that a November butterfly in Edmonton will probably be a Clouded Sulphur, and it will probably show up in an open, sunny, disturbed area with a few flowering weeds—the railway tracks are my idea of perfect habitat. Now I'm not so sure—perhaps it will be a nymph after all.

I'm pretty sure, though, that an Alberta November butterfly didn't pop up on the ALG listserve until November 1, 2008, when Nora Bryan wrote, from Calgary, "Joe saw a Mourning Cloak in the back alley yesterday," and Jonathan Dean posted, "Hello there from Southern Alberta. I took your challenge to find November butterflies. On a beautiful (21 ° C) Nov. 1st I managed to find 3 sulphurs and a Wood Nymph in the Helen Schuler Wilderness park in the River valley in Lethbridge." That same day, the Sperlings, and my sons and I, were out together in Edmonton, at 15 °, but we saw no butterflies. The summer of 2008 was warm and dry, and in those days we took for granted that the butterflies would disappear long before the last moths. On Nov. 2, 2008, Charley Bird reported "lots of Bruce Spanworm moths 8 km NW of Winfield over the last two days, they were also flying near Arrowwood shortly before that, and also near out home in Erskine. Little moths of the genus *Alucita* were also flying at the Winfield site. No butterflies." The other late season lep has traditionally been the inchworm moth *Erranis tiliaria*, but after the cold snowy winters, and wet, cool summers, of 2010 and 2011 both this and the Bruce Spanworm (*Operophtera bruceata*) have been more or less absent from at least the Edmonton area.

Back to the butterflies, on October 17, 2009 I made a note that "at home in the afternoon, I caught a glimpse of a Mourning Cloak in the back yard, being chased by a chickadee." I was, however, in Prince Edward Island for the end of the month (where I did see a Clouded Sulphur), and didn't have a chance to look for leps in Edmonton. Things were rather cool in 2010, and my notes from October 25 read "It snowed last night, after a cloudy and rainy weekend, and I suspect this is the end of the butterfly year. Once again, no hope for a November *Colias*." But on Oct. 31 Matthias Buck posted, "I saw a Milbert's Tortoiseshell in east Edmonton today. Weather conditions were sunny and 10°C. He seemed a little sluggish as it was probably barely warm enough."



For a long time, I thought this was the perfect habitat for the last butterfly of the season, and I'm pleased to report that this no longer seems to be the case.

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Having completely forgotten Matthias' record, imagine my excitement on October 30 of this year, 2011, when according to my notes, "the forecast high was 12°, a value easily achieved by this glorious autumnal afternoon. With damp ground and iced-over shade puddles, we [my son Jesse and I] came, as we often do, to the southern bounds of Walker Yard, a location pregnant with possibilities. As the great engines of the CN line ambled east and west, Sultran gondolas amongst them, so did two pierid sulphurs, as I had hoped. Colias philodice, in the flesh-- a new personal record breaking my 1998 record by a day. On the ALG listserve, Robin Leech reported a mourning cloak as well."

Most recently, though, I emailed Jan Scott in Medicine Hat, to check on her November records. Her response amazed me, and gave a clear idea of just how different things are here at the edge of the boreal forest, compared to the grasslands of the Deep South, where Jan has recorded no less than eight species in November! Her list is below.

Jan Scott's list of late season butterflies from	
	Medicine Hat
2005-November 2	2 Clouded Sulphurs
	1 Satyr Anglewing
2007-December 3	Satyr Anglewing (in my garage)
2008-November 28	Milbert's Tortoiseshell (in doghouse)
2009-November 3	Satyr Anglewing
	2 Clouded Sulphurs
	Cabbage Butterfly
2010-November 4	Western White
	4 Clouded Sulphurs
	Aphrodite Fritillary
November 5	Red Admiral
	3 Milbert's Tortoiseshells
	4 Clouded Sulphurs
	Cabbage Butterfly
November 6	Aphrodite Fritillary
November 7	Checkered Skipper
	2 Cabbage Butterflies
	5 Clouded Sulphurs
	Milberts Tortoiseshell
	Aphrodite Fritillary
2011-November 8	1 Clouded Sulphur

Finally, will these records tell us anything about global warming? Sure, but first we need a couple of hundred years worth of data, just to compensate for the variability of fall weather—sounds like a good ALG project to me. Perhaps we should be counting numbers of species late in the year, not just the latest dates? Keep watching for those late season records, and trust me, when you do, it is possible to maintain the illusion that summer is still with us right up until the very moment that winter comes crashing in to flash freeze our province.



A Clouded Sulphur, but from August, not November (photo by H. Proctor)



