



ALBERTA LEPIDOPTERISTS' GUILD NEWSLETTER SPRING 2016

Welcome to the ALG Newsletter, a compendium of news, reports, and items of interest related to butterflies, moths, and lepidopterists in Alberta. The newsletter is produced twice per year, in spring and fall, edited by John Acorn.



Canadian Tiger Swallowtail, reared on Cow Parsnip, Trudy Haracsi

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Cow Parsnip as a new host plant for Canadian Tiger Swallowtail caterpillars

Trudy Haracsi

On June 5, 2015, I observed and photographed a Canadian Tiger Swallowtail (*Papilio canadensis*) laying an egg on cow parsnip (*Heracleum lanatum*) in my garden in Edmonton. On June 18, the egg hatched, initiating an interesting discussion on Albertaleps, during which Felix Sperling encouraged me to rear the caterpillar.

Cow parsnip is a native wildflower, and although *Papilio zelicaon* and *P. machaon* caterpillars have been known to feed on it, this is a new host plant record for *Papilio canadensis*, the caterpillars of which usually feed on poplars or willows.

To rear the caterpillar, I set it up in a screened cage, outdoors. The larva developed normally on cow parsnip, and became a chrysalis during the second week of August. The chrysalis didn't have a silk harness, but there was a little silk on its hind end. I glued it to a willow branch, and used willow leaves to brace it for the winter. It spent the winter outside, in a partly screened box-within-a box structure. On May 19, 2016, the butterfly began to emerge. At 6:00 am on May 20th, I sprayed it lightly with water, and it emerged successfully. May 20 is right around the time that *P. canadensis* normally appears on the wing in Edmonton.

The adult butterfly was normal in all respects, and quite large. It was released unharmed, but from the photographs it appears to have been a female.

I would like to thank Felix Sperling and Jan Scott for their great advice during the rearing process. This article was composed with my permission by John Acorn, and based on our email exchange.



Wild female Canadian Tiger Swallowtail laying egg on cow parsnip, Edmonton, Alberta, June 5, 2015, Trudy Haracsi.



Rearing of Canadian Tiger Swallowtail caterpillar on Cow Parsnip: A) Egg on cow parsnip, B) early instar caterpillar, C) full-grown caterpillar on silk pad, D) pupa, E) rearing cage, F) overwintering cage, opened, G) overwintering cage, in snow. All photos, Trudy Haracsi.

A Trip to the Castle River

Vic Romanyshyn

Given the number of species from the southern part of Alberta that still remain on the hit list for the Alberta Butterfly Roundup I decided to make one more trip to the Castle River region and wasn't disappointed. The highlight was finding a Western Tiger Swallowtail (*Papilio rutulus*) at the Castle River, and seeing another one close up, puddling on the shore of Beauvais Lake, in the Provincial Park southeast of Beaver Mines. It lacked the orange spots, and could have been a *P. rutulus*, but the park ranger drove off just then so I couldn't get permission to catch it for closer inspection.

I was, however, given permission to drive up the service road to the top of the chairlift at the Castle Mountain Resort and found some interesting things up there, particularly once I climbed up to tree line near the weather station that sits on the ridge near the top. This is where I saw several and caught three Spring Whites (*Pontia sisymbrii*). Sheridan's Hairstreaks (*Callophrys sheridanii*) were up there as well, along the road wherever sage was growing. There were a few Lupine Blues (*Aricia lupini*, the species we used to call *A. acmon*) and Chryxus Arctics (*Oeneis chryxus*) as well as Rocky Mountain Parnassians (*Parnassius smintheus*) lower down, and plenty of checkerspots, both Northern (*Chlosyne palla*) and Anicia (*Euphydryas anicia*), though at this point I was looking for the Edith's and Rockslide varieties. Interestingly, I managed to catch one female Arctic Blue (*Agriades glandon*) of the *megalo* subspecies, but found no sulphurs (*Colias* spp.) of interest.

Along the road to Beaver Mines Lake I found a female *Parnassius smintheus* in steady flight along the ditch heading back up towards the junction of the South Castle River road and after a few swings and some running at my maximum chug-a-lug speed got the critter into the net. Turned out to be worth the effort. Once on the South Castle Road about 500 meter in from the small stream that one fords at the start I saw two male *P. smintheus* cruising in a clearing. These were both very intensely white in colour with larger red spots and slightly larger in size than the ones I found cruising along the open sagebrush slope that Dave, Bruce and I had visited earlier in June further up the South Castle road and on the upper slopes of Castle Mountain.

Along the South Castle road I came across two Anise Swallowtails (*Papilio zelicaon*), the only two seen on the trip. The South Castle road was much drier this time but still had some larger deeper puddles, holding water that attracted mainly checkerspots and crescents. Here is where I came across a few very

fresh Lorquin's admirals (*Limenitis lorquini*) and Gillett's Checkerspots (*Euphydryas gillettii*), the latter in large numbers but localized to two puddles relatively near to one another. It was at one of these larger puddles that I saw something somewhat surprising. As I stood near the murky water looking at all the butterflies that were fluttering about and landing on the wet soil a frog emerged out of the dirty water and started for a Gillette's butterfly that had landed near the water's edge. It took two waddling steps and stopped, realizing that I was standing too close for comfort so it turned around and waddled back into the murky water and immediately disappeared. I stood there with my mouth open ready to say "Did you see that!" but my wife was sitting in the truck looking the other way. How the frog survived in that puddle with all the ATV's and trucks cruising through I don't know, but there it was, living in dangerous territory, albeit one offering easy butterfly pickings and a regular full stomach at convenience.

I felt a fleeting sense of sorrow for the butterflies that only lasted as long as it took for my net to land over one of the Gillette's. If the frog was going to take some, so was I. Later that morning, I climbed the sagebrush slope further up that was explored by Dave, Bruce and me early in June to see if there was anything new at this time of the year. Turned out there wasn't as far as the Roundup was concerned. The hiking trail continues well past where I turned around and I know I should have gone higher, but being alone, felt uneasy about going further into bear country. On the return trip I caught a tiny rather attractive moth, which needs identification. There were a few fritillaries around in various places we visited over the course of the three days we were there all in need of identity confirmation.

We walked up the old road leading across the Castle River from the ski resort for some distance and found more Lorquin's, Canadian Tiger Swallowtails (*Papilio canadensis*) and checkerspots. Here I found a female Stella Orangetip (*Anthocharis stella*), the only female I saw in the three trips into the Castle River drainage area. I also saw a few fritillaries, one of which was a Hydaspe (*Speyeria hydaspe*). We had lunch next to the newly installed walking bridge and found a number of Lupine Blues puddling along the edge of the river, more Lupine Blues there than anywhere else we visited. The only other lycaenid in the general Castle River area in reasonable numbers was the Boisduval's Blue (*Plebejus icarioides*). The two Arrowhead Blues (*Glaucopsyche piasus*) caught were found in a flat area next to the Castle River bridge north of Beaver Mines town along Hwy 507. There was a field of lupines and other flowers across from the turn-off to Beaver Mines Lake, which I explored thoroughly but only found the *P. icarioides*. Here I caught one of the fritillaries, which will be identified later once pinned.

I must say that we arrived before the massive influx of campers with their dirt bikes and quads on Thursday evening but found things remained surprisingly quiet once away from the roads. All in all, a very pleasant trip which culminated with the Charley Bird's butterfly count at Dry Island on Sunday. The only disappointment was a flat tire half way home from Dry Island on Sunday afternoon.



Top to bottom, left to right: *C. palla*, *E. anicia*, *P. rutulus*, *G. piasus*, *Hesperia comma*, *S. hydaspes*, *L. arthemis*, *P. smintheus*, *P. sisymbrii*, *C. sheridanii*, *O. chryxus*, *C. palla*, *E. anicia*, *Polygonia zephyrus*, *A. milberti*.

Alberta Butterfly Roundup Mid-Summer Update, 2016

John Acorn

The Alberta Butterfly Roundup began last year, as an attempt to reconfirm all 175 species of butterflies known from the province. In 2015, 122 species were identified, and another, the Regal Fritillary (*Speyeria idalia*), was added to the provincial checklist, by Gary Anweiler (see articles in the Fall 2015 ALG Newsletter).

So far this year, an additional eleven species have been added to the Roundup count, nine of which were diligently tracked down by Vic Romanyshyn. Last year, Jan Scott and Gary Anweiler were the major contributors to the Roundup, but this year Vic has really risen to the challenge. Dave Lawrie and Bruce Christensen also got a single species each. Interestingly, all of our new records from 2016 were the result of Edmontonians traveling to the southwest corner of the province.

One disclaimer: the swallowtail that we are calling “Western” may in fact (with thanks to Felix Sperling for his opinion) be a hybrid between Western (*Papilio rutulus*) and Canadian Tiger Swallowtail (*P. canadensis*) but for the purposes of the Roundup, I am considering the species “found.”

For a full update on the Roundup, watch the Fall ALG Newsletter. In the meantime, I do hope we can tick off a few more while the season is on. Below are the species that have been added in 2016.

Western Tiger Swallowtail; Castle River; July 1, 2016; V. Romanyshyn
Margined White; Beaver Mines Lake Road; June 3, 2016; V. Romanyshyn
Stella Orangetip; Beaver Mines Lake Road; June 3, 2016; V. Romanyshyn
Spring White; Castle Mountain Resort; July 1, 2016; V. Romanyshyn
Arrowhead Blue; Castle River Bridge; July 1, 2016, V. Romanyshyn
Sheridan’s Hairstreak; Whistler Mountain; June 5, 2016; B. Christensen
Hydaspe Fritillary; Castle River; July 1, 2016; V. Romanyshyn
Pacific Fritillary; Beaver Mines Lake Road; June 3, 2016; V. Romanyshyn
Rockslide Checkerspot; Castle Mountain Resort; July 1, 2016; V.

Romanyshyn

Grizzled Skipper; Hailstone Butte; June 6, 2016; D. Lawrie

Arctic Skipper; Beaver Mines Lake Road; June 5, 2016; V. Romanyshyn

Nectaring Lepidoptera Survey Pilot Project

Loney Dickson and Doug Macaulay

It all started back in the dead of winter. Colleen Raymond asked about "detecting the presence of nocturnal moth species who might visit flowering plants at night." That led to an exchange of ideas, about starting up an ALG project on the topic. So now that it is summer and moths are nectaring, this is the call to action.

The goal of this 2-year pilot project is to photograph and record adult moths or butterflies feeding on host flowers in the province of Alberta. Participants may also submit records related to other food source such as dung or any other material. To submit an observation, take a photo and some brief notes then submit the data via email to the ALG group. If you don't know the species of moth or plant, we encourage you to submit your data anyways with photos for identification. There are a few botanists amongst us who will fill in any blanks.

When photographing nocturnal moths we'd recommend using a headlamp as well as a camera flash. This trick helps with focusing, both manually or automatically, because the moth or plant needs to be illuminated before focusing can be done. Be sure to share your experiences with us, as many of us will also be learning as we go. Perhaps ALG will come up with some new and innovative techniques.

Loney Dickson & Doug Macaulay are taking the lead on coordinating this project so we encourage anyone who has questions to connect with them. All data collected will be rolled up in the fall for a seasonal summary report.

We encourage folks to be moths and go nocturnal a couple times over the summer. But for those of us who pass out before dark, we'd be happy to see any crepuscular or diurnal photos as well. Historical observations are also welcome. Many of us have records from years back that have been buried in our brains or field notebooks. This is your chance to share these notes.

There will be observations where you can't tell if the moth is actually feeding, but it has been on the flower long enough to suggest it likely is feeding. The heading "Probable Nectaring Moth" should be used in such instances. Don't get frustrated if you can't actually see the moth feeding, just knowing what flower it may be feeding on will be useful.

Submission guidelines:

1) Submit observations/photos via email to ALG, and cc Loney Dickson & Doug Macaulay. The ALG Facebook page will also be monitored. For the email subject line use the following format, "Nectaring moth: Name, host name, date observed." For example, for a Snowberry clearwing observation it would read, "Nectaring moth: Snowberry clearwing (*Hemaris diffinis*), on dandelion, 15 MAY 2016."

2) Records should include a photo, preferably one that includes the host flower or substrate. We understand this may not be as easy as it sounds but a written submission is welcome. For historical records, photographs will not be required, but if you have them we love to see them.

3) Checklist:

A photograph of the moth (alive or a specimen);
A photograph of the host plant/other (e.g. coyote dung) to help confirm ids;
The nectaring moth / lepidopteran's name;
The plant /hosts name;
Locality information, date and time of observation;
Observer and / or photographer's name.

Try to include all the data we've specified above but if you can't we still encourage you to send in your record. We encourage ALG members, as we currently do, to pitch to help with identifications. Have a great field season, we are really looking forward to seeing everyone's discoveries.



Nectaring moths name: *Hemaris thysbe* (Humminbird Clearwing)

Plant host: dandelion
(*Taraxacum officinale*)

Location: Sturgeon Co., Waugh
(4.9 km SE of). 54° 0.424'N 113°
21.313'W

**Photographer/collector's name
and collection # :** H. Loney
Dickson HLD1364

Time observed: 13:10

Date observed: 2016 - MY - 18

© H. Loney Dickson

Song of the Western Elfin Butterfly

Annie Pang

Is it true? I would beg your pardon....
but it seems you have planted me
a wonderful garden.
There was a time, so very long ago
where wonderful things in this land
...used to grow.
I thought you should know.
But as more of you came...
and this is not meant as blame...
...or shame...
but for my kind, hard to forgive,
when you, in your ignorance
wiped out where we once lived.
Now...too many of you
and too few of us,
yet I see this lovely garden you're building,
and, for my kind, that is a plus.
So perhaps we will once again have a chance
to live and thrive together
despite the changing weather
in a hopeful...butterfly...dance...



3 July 2016 Dry Island Butterfly Count

Charles Bird

Location: Dry Island Buffalo Jump Provincial Park, Red Deer River Valley, east of Huxley.

Folks gathered at the Upper Viewpoint/Parking Lot and the Count started at 10 am. It was overcast up there and few butterflies were seen. After introductions and a short talk, we drove down to the picnic area. We had scattered cloud with a light NW wind throughout the Count and the temperature ranged from 18-24 °C. We roamed around the picnic area, then, had lunch at noon. After that, we had the traditional group photograph (thankfully taken by a visitor). Then, because of the large number of participants, we divided up into three teams, one lead by John Acorn, one by David Lawrie and Vic Romanyshyn, and one by Charley Bird; each group checked out a different area – John uphill, David to the Dry Island and Charley downstream along the river and then back. We were lucky to have two sunny breaks as the butterflies started flying whenever that happened. Wildflowers put on a good show. As usual, tiger lilies were everyone's favorites. Mosquitoes were seldom a problem. Kilometers on foot estimated to be over 10. This count has been held annually since 1999.



The participants (47, see photo on previous page) were John Acorn, Kypton Anderson, Rob Anderson, Rowan Anderson, Sharon Anderson, Elizabeth Bagdan, Kurt Bagdan, Tjarda Barratt, Ann Bird, Art Bird, Charley Bird (Compiler), Dixie Bird, Tony Blake, Amanda Brown, Bob Brown, Shannon Brown, Wayne Brown, Bruce Christensen, Helen Christensen, Anthony Eagles (Alberta Parks), Eileen Ford, Laurel Ford, Stewart Ford, Jim Garrick, Seamus Garrick, Carly Kenny, David Lawrie, Dermot MacDougall, Iain MacDougall, Sandra MacDougall, Brian Orr, Colleen Raymond, Bev Romanyshyn, Vic Romanyshyn, Andrew Scafe, Elise Scafe, Eric Scafe, Ingrid Scafe, Tim Schowalter, Laura Scott, Shelagh Sisson, Cheryl Tebby, Chris Verhoeven, Bella Whitehead, Elena Whitehead, Juliana Whitehead, and Peter Whitehead.

SPECIES OBSERVED – The names and order follow that of G.R. Pohl et al., 2010, An Annotated List of the Lepidoptera of Alberta, Canada (ZooKeys 38, 1-549, Special Issue).

Pyrgus communis (Checkered Skipper) - 2
Oarisma garita (Garita Skipper) - 5
Thymelicus lineola (European Skipper) - 7
Polites themisticles (Tawny-edged Skipper) - 4
Polites mystic (Long Dash Skipper) - 1
Anatrytone logan (Delaware Skipper) - 1
Euphyes vestris (Dun Skipper) - 2
Papilio machaon dodi (Dod's Old World Swallowtail) – 30
Colias philodice (Clouded Sulphur) – 20
**Colias eurytheme* (Alfalfa Butterfly) - 1
Colias christina (Christina Sulphur)- 1
Pieris rapae (Cabbage Butterfly) – 1
Pontia occidentalis (Western White)– 2
Satyrrium titus (Coral Hairstreak) - 1
Satyrrium liparops (Striped Hairstreak) – 2
**Strymon melinus* (Gray Hairstreak) - 1
Cupido amyntula (Western Tailed Blue) - 3
Glaucopsyche lygdamus couperi (Silvery Blue) - 8
Plebejus melissa (Melissa Blue) – 1
Aricia saepiolus (Greenish Blue) - 1
Aricia shasta (Shasta Blue) - 2
Limenitis arthemis rubrofasciata (White Admiral) - 8
Euptoieta claudia (Variegated Fritillary) – 1

**Boloria bellona* (Meadow Fritillary) - 2
Speyeria cybele pseudocarpenteri (Great Spangled Fritillary) - 3
Speyeria callippe (Callippe Fritillary) - 6
Speyeria hesperis (Northwestern Fritillary) - 7
**Aglais milberti* (Milbert's Tortoiseshell) - 1
Phyciodes cocyta (Northern Pearl Crescent) - 10
Phyciodes batesii (Tawny Crescent) - 2
Cercyonis pegala (Meadow Brown) - 1
Coenonympha inornata (Common Ringlet) - 9

John Acorn kept track of the odonates. Four dragonfly species were observed: *Aeschna interrupta* (Variable Darner), *Ophiogomphus severus* (Pale Snaketail), *Leucorrhinia intacta* (Dot-tailed Whiteface), and *Sympetrum internum* (Cherry-faced Meadowhawk). In addition, John mentioned that, "Iain MacDougall reported to me that he saw a large dragonfly (he estimated 10 cm wingspan, indicating with his fingers) with patches of white and black along the wing margins. I asked him how many patches, and he guessed about four sets of black and white on each wing. The dragonfly was near the river. My take on this is that the twelve-spotted skimmer (*Libellula pulchella*) is nearly unmistakable, and that this was most certainly a sighting, despite the fact that it has three sets of markings per wing, not four." Three damselfly species were noticed: *Enallagma annexum (cyathigerum)* (Northern Bluet), *Lestes unguiculatus* (Lyre-tipped Spreadwing) and *Coenagrion resolutum* (Taiga Bluet).

Eileen Ford kept track of the plants that were found to be in flower. They were Prickly Pear Cactus (*Opuntia polyacantha*), Bergamot (*Monarda fistulosa*), Northern Bedstraw (*Galium boreale*), Fringed Loosestrife (*Lysimachia ciliata*), Wild Blue Flax (*Linum lewisii*), Yellow Flax (*Linum rigidum*), Umbrella-plant (*Eriogonum umbellatum*), Wild Rose (*Rosa acicularis*), Fleabane (*Erigeron pumilus*), White Sweet Clover (*Mellilotus alba*), Yellow Sweet Clover (*Mellilotus officinalis*), Lilac-flowered Beard-tongue (*Pentstemon gracilis*), Scarlet Mallow (*Sphaeralcea coccinea*), Scarlet Butterfly-weed (*Gaura coccinea*) - very appropriate for a Butterfly count!, Buckbrush (*Symphoricarpos occidentalis*), and Western Wood Lily (*Lilium philadelphicum*).

General Comments: An excellent turnout with a record 47 observers (41 last year). Thirty-two species of skippers and butterflies and 146 individuals were seen (last year we had 21 species and 141 individuals). This year's highlights were *Strymon melinus*, *Colias eurytheme*, *Boloria bellona* and *Aglais*

milberti, all of which were Count firsts. Also of note were sightings of the following, all of which have been seldom seen on previous counts: *Anatrytone logan* (last recorded in 2007), *Euphyes vestris* (recorded in 2014 and 2015) and *Colias christina*. David Lawrie made a special point of mentioning that he, Vic Romanyshyn and Chris Verhoeven saw 25 Old World Swallowtails, and 6 *Speyeria callippe* hilltopping on the Dry Island.

Many participants had nets. The Count, being in a Provincial Park, was catch, identify and release. All agreed that this Park is one of Alberta's gems and all hoped that, with continued good management, it will remain so. Lots of scenery and flower photos were taken.



Sheep Moth (*Hemileuca eglanterina*) in defensive posture, Waterton Lakes National Park, July 12, 2016, Benny Acorn