



# ALBERTA LEPIDOPTERISTS' GUILD NEWSLETTER FALL 2016

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

*Enodia anthedon*, C. Bird, 8 km NW of Winfield AB



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# Searching for *Boloria alberta*

David D. Lawrie

One of the “coolest” & most elusive butterflies in the world, at least in my opinion, is the Alberta Fritillary, *Boloria alberta* (W. H. Edwards, 1890) (but see Guppy and Shepard, 2001 for an alternate common name). It is one of the species still on the “to be found list” for the Alberta Butterfly Roundup, and Acorn (1993) comments, “this dull coloured butterfly is one of the toughest in the province to find.” This article shares some of my observations on *B. alberta*, in the hope that they will help someone find this species for the Roundup in 2017.

This high alpine species has an extremely limited distribution, occurring primarily in the Rocky Mountains of Alberta, with populations known from adjacent areas in British Columbia and Montana– and that’s it in the world (Acorn 1993, Bird 1995, Guppy, 2001, Layberry, 1998)! Where it lives in that restricted range is the main reason I think this is such a “cool” butterfly, namely on barren rocky mountain slopes above 2000 m elevation, year-round. Layberry (1998) indicates that it is relict species, surviving the last Ice Age on small refuges of vegetation above the ice sheets, high in the Rocky Mountains. This is one hardy species. Cool!

Why is it so hard to find? First is its remote and inaccessible habitat: rocky scree slopes above 2000 m. This usually means a fairly arduous hike to reach the preferred habitat. There are some locations in Alberta where it is possible to drive to fairly close to the suitable habitat (Plateau Mountain, Highwood Pass) but I have never found *B. alberta* at those locations.



*Boloria alberta* (W.H. Edw.) (male dorsal)  
ALBERTA: 6km W of Ya-ha Tinda Ranch, W Sundre, 27-VII-96 (D. Lawrie)  
U. A. Strickland Museum #UASM33585 (G.G. Anweiler image)



*Boloria alberta*

DNA voucher #3757  
CANADA: AB: Prospect Mtn., 17-VII/1999  
leg. D. Lawrie U Alberta Strickland Museum

Images from Schmidt, 2001.

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Next is the unpredictability of mountain weather and seasonal variation. *B. alberta* flies only for a couple of weeks at any location and the exact time is dependent on local conditions. It is relatively easy to be a week early or late and miss the peak flight, or simply to have cold wet & rainy weather. As an added complication, *B. alberta* seems to have a two-year life cycle meaning that in many locations it seems to be found only in odd or even years (Bird 1995, Guppy, 2001, Layberry, 1998). Eggs laid one summer do not reach adulthood until two summers later. Note that the full life cycle & early stages have not been completely reported .

Alberta records range from the end of June to the end of August, with mid-late July as the peak flight period (Bird 1995). In most locations in Alberta, *B. alberta* records are from even years, while records for the Cardinal Divide area are only from odd years, but it has been found in both even and odd years on Plateau Mountain (Schmidt 2003). I have visited Plateau Mountain many times but have never observed *B. alberta* there, most likely because I wasn't in the preferred habitat.

Finally, assuming one has gotten the timing right, climbed to suitable habitat and has good weather, *B. alberta* is not an easy critter to get a good look at. They are quite wary and fairly fast flying, particularly if it is windy. Often, all one sees is a brief flash of orange/brown before the creature disappears over a ridge or drops into obscurity amongst the scree. In addition, *B. alberta* does not hilltop in the same way as other species, rather as Gerry Hilchie (pers. com. 2016) has described it, they seek out the "highest low spots", and this agrees with my observations. What this means is that one needs to be looking just below actual ridgetops or prominences. This is steep and difficult terrain for humans to move around in, much less get close a wary butterfly that can glide effortlessly up and down over the rocks and use the wind to its advantage.

I first began looking for *B. alberta* in the mid-1980s. I estimate that I've made about 20 different trips between 1985 and 1996 specifically looking for it and out of those trips, I've managed to find *B. alberta* at four different locations (all Alberta) on six different dates, and that's it! Results are summarized in the table on page 4. Elevation change and one way distance are the difference in altitude and hiking distance between starting (leaving vehicle) and observation points, respectively.

In July of 2016, Vic Romanyshyn and I returned to the exact spot on Prospect Mountain where I had collected *B. alberta* in 1999. We had lousy weather and didn't see a single butterfly at the spot (though lots of other species were seen at lower altitudes). I did see one fast moving orange/brown thing that might have been a butterfly...maybe!



Date	Location	Elevation (m)	Elevation Change (m)	One Way Distance (km)	Observed
1990, August 6	2 km N of Chester Lake, Kananaskis	2450	550	7	1 male
1994, July 24 & 30	Above Upper Galatea Lake, Kananaskis	2250	700	8	females only
1996, July 21 & 27	Mountain 6 km W of Ya Ha Tinda Ranch (72 km W of Sundre)	2500	940	13	males and females
1999, July 17	Prospect Mountain, near Cardinal Divide	2200	520	8	1 male

The other locations listed are very similar, but the Galatea Lakes spot was a bit lower elevation (compared to the others in that part of Alberta) and not quite as steep and exposed (or at least I didn't climb as high). Interestingly, only females were observed at this spot, on both occasions. This is consistent with observations by Gerry Hilchie and Ted Pike (pers. com. 2016) that females are generally found at slightly lower altitudes and more sheltered spots.

To the best of my knowledge, the complete life cycle of *B. alberta* has not been reported. On July 30, 1994, I observed at least ten females of *B. alberta* and spent time watching their behaviour, looking to see if they would oviposit on Mountain Avens (*Dryas octopetala*), the presumed foodplant (Bird et al. 1995, Guppy and Shepard, 2001, Layberry, 1998). Nectaring was observed as well as basking on rocks, but no signs of ovipositing were observed. Shepard (in Guppy and Shepard 2001) could not get *B. alberta* to lay eggs on *D. octopetala*.

In December of 1999, I had the chance to observe a different species of high alpine butterfly that has very similar habits to *B. alberta*, namely the Black Mountain Ringlet, *Percnodaimon pluto* (Butler 1876), a species endemic to New Zealand. It too lives high in mountains and inhabits barren scree slopes. Its flight behavior is quite like that of *B. alberta*, but its life cycle has been fully worked out and reported (Gibbs 1980). I mention it here since details of its life cycle may be similar to that of *B. alberta* and may guide people in making observations.

First, *P. pluto* does not lay its eggs on the host plant, rather it lays them on nearby stones! Quoting Gibbs (1980): "In the sun, rocks reach a higher temperature and retain more of the heat than plant surfaces. The eggs are evidently able to benefit from this extra warmth, permitting them to develop faster than if placed on vegetation." If *B. alberta* is similar, this could explain why Shepard's females refused to oviposit directly on the host plant. It might also explain my own observations from 1994, perhaps the butterflies were doing more than just basking on the rocks!



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Next, the larvae of *P. pluto* pupate on the underside of thin rock slabs, again presumably benefitting from the thermal properties of the rock warming in the sun. Next time I'm in *B. alberta* habitat and the weather is lousy, I'll spend some time looking on the underside of rocks, rather than just wishing the weather would get better.

Finally, Gibbs discovered that the larvae of *P. pluto* are nocturnal, coming out to feed at night, presumably to avoid daytime predators such as birds. I'll leave it to someone younger and more energetic to go searching scree slopes at night though!

In conclusion, I hope these observations are of use to anyone searching for *B. alberta*, and if people do manage to find it, they take a bit of time to make observations on its habits. Good Luck in your search!



Figure 1. *Boloria alberta* habitat near Prospect Mountain. In 1999, *B. alberta* was observed here flying just above the rocks, occasionally stopping to bask on the rocks. It would leisurely glide downhill for 20 – 30 m, move laterally, quickly fly back up slope, and repeat. It remained in the shallow depression in the centre of the photograph. Most of the vegetation is Mountain Avens (*Dryas octopetala*), the presumed hostplant of *Boloria alberta*. (July 24, 2016. D. Lawrie photo)





Figure 2. Vic Romanyshyn in *B. alberta* habitat for scale. Vic is standing just to the right of the large rock at the centre right of the previous picture. It was rather windy that day. (July 24, 2016, D. Lawrie photo)



Figure 5 – Approach to the Prospect Mountain *B. alberta* spot, showing lush lower alpine habitat – If there are grasses & flowers, you aren't in the "right spot for *B. alberta*". (July 24, 2016, D. Lawrie photo)



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# Alberta Butterfly Roundup 2016 Update

John Acorn

The Alberta Butterfly Roundup began in the spring of 2015, as an attempt to relocate all of the butterfly species previously recorded from Alberta. At the end of 2015, 122 species had been confirmed, including one new to the provincial list, *Speyeria idalia* (Regal Fritillary). In the last ALG Newsletter, I reported on an additional 11 species. Now, at the end of its second year, contributors to the Roundup have added three more. Thanks to Vic Romanyshyn we can now add Alaska (Mountain) Fritillary (*Boloria alaskensis*) and Magdalena Alpine (*Erebia magdalena*). And thanks to my own inattention to records accumulating on eButterfly, it turns out that on June 18, 2016, well before the publication of the Spring Newsletter, a Balder's (Jutta) Arctic was photographed at the Wagner Natural Area by Bob Brown. This brings the total number of species found during the roundup to a respectable 136.



Balder's Arctic, Wagner Natural Area, R. Brown





Alaska Fritillary, Magdalena Alpine, Mt. Hamell, V. Romanyshyn

Since I promised a complete update in this, the fall newsletter, let me begin with the species that we still need to confirm. The following species should, one might expect, turn up just as soon as one of us spends time in the right place at the right time of year. For each species in the list below, I give the month in which most records have occurred, as well as a quick description of where to look. Notice that many of these are either small and obscure butterflies, or difficult species to identify. I have not included hypothetical species in this list. I should add, though, that for each of these species, it would be great to have a guide such as Dave Lawrie's excellent article on *Boloria alberta* earlier in this newsletter.

Small Checkered Skipper (*Pyrgus scriptura*): July, extreme southeast

Least Skipper (*Ancyloxypha numitor*): July, Lloydminster area

Oslar's Roadside Skipper (*Amblyscirtes oslari*): May, Milk River drainage

Nevada Skipper (*Hesperia nevada*): June, northern grasslands, southern parklands, and extreme southwest

Queen Alexandra's Sulphur (*Colias alexandra*): July, open grasslands

Canadian Sulphur (*Colias canadensis*): June, northern Rockies and northern boreal forest

Pelidne Sulphur (*Colias pelidne*): July, subalpine shrubby and forested areas

Pine White (*Neophasia menapia*): September, dry subalpine pine forests

Checkered White (*Pontia protodice*): September, widespread migrant

Half-moon Hairstreak (*Satyrium semiluna*): July, Waterton area, near buckwheat

Sylvan Hairstreak (*Satyrium sylvinus*): July, southwest corner, near streams

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Hedgerow Hairstreak (*Satyrium saepium*): August, southwest, dry slopes with *Ceanothus* (soap bush) plants  
Juniper Hairstreak (*Mitoura gryneus*): June, southwest corner, near junipers  
Moss' Elfin (*Calliphrys mossii*): May, southwest corner  
Echo Azure (*Celastrina echo*): May, southwest corner  
Lupine Blue (*Plebejus lupini*): June, southern grasslands  
Dingy Fritillary (*Boloria improba*): July, northern Rockies, alpine areas with willows  
Alberta Fritillary (*Boloria alberta*): July, Rockies, above treeline  
Edwards' Fritillary (*Speyeria edwardsii*): July, extreme southern Alberta  
Oreas Angleming (*Polygonia oreas*): October, southwest corner  
Eyed Brown (*Lethe eurydice*): July, sedge meadows, eastern parklands  
Polixenes Arctic (*Oeneis polixenes*): July, mountains, near treeline  
White-veined Arctic (*Oeneis bore*): July, northern Rockies, above treeline

There are also four species that are irruptive migrants, meaning that they do not overwinter in Alberta and appear only during population peaks that originate outside the province. These peaks lead to migrations that result in records well outside of their usual geographic ranges. When such a year comes along (and different species may experience these peaks in different years), we need to get out and find these butterflies. This may take some time. The last year with Question Mark records was 2012. Before that, there was only a single record, from Lloydminster, many decades ago (date not given in Bird et al., *Alberta Butterflies*).

American Lady (*Vanessa virginiensis*)  
West Coast Lady (*Vanessa annabella*)  
California Tortoiseshell (*Nymphalis californica*)  
Question Mark (*Polygonia interrogationis*)

And finally, there are five species that have been recorded only once or twice in the province, and may never show up again. None of these have been seen in decades, and the odds of finding them are probably about the same as adding new species of "accidentals" to the list, such as last year's Regal Fritillary, or any of the species that have been considered hypothetical in other publications.

Clodius Parnassian (*Parnassius clodius*): July, Waterton back country



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Pale Swallowtail (*Papilio eurymedon*): July, dry montane forests  
Edith's Copper (*Lycaena editha*), July, mountain meadows  
Lilac-bordered Copper (*Lycaena nivalis*): August, southwest corner,  
meadows  
Southern Dogface (*Zerene cessionia*), August, one record from near  
Didsbury

As for the species that have been found to date, well, here is the list, arranged in chronological order. Read it for the vicarious thrill, and I do hope that some of you will use this article to help focus your plans for the 2017 field season. After all, the Roundup ain't over till the last doggie is in the corral. Note, as well, that I have been rather conservative in my choice of species names here, and that other lepidopterists may recognize additional species in our fauna.

Cabbage White; Edmonton; Mar. 31, '15; Z. MacDonald  
Mourning Cloak; Edmonton; Mar. 31, '15; Z. Macdonald  
Satyr Comma; Edmonton; Mar. 31, '15; G. Anweiler  
Western White; Medicine Hat; Apr. 9, '15; J. Scott  
Gray Comma; Edmonton; April 9, '15; D. Colwell  
Milbert's Tortoiseshell; Edmonton; Apr. 10, '15; G. Anweiler  
Compton Tortoiseshell; Edmonton; Apr. 14, '15; G. Anweiler  
Olympia Marble; Medicine Hat; Apr. 14, '15; J. Scott  
Northern Spring Azure; Muir Lake; Apr. 19, '15; C. Raymond  
Western Pine Elfin; Elbow Falls; Apr. 22, '15; C. Fisher  
Clouded Sulphur; Medicine Hat; April 27, '15; J. Scott  
Old World Swallowtail; Medicine Hat; April 27, '15; D. Schneider  
Green Comma; Edmonton; April 28, '15; G. Anweiler  
Alberta Arctic; Medicine Hat; Apr. 29, '15; D. McKenzie  
Mustard White; Edmonton; Apr. 30, '15; G. Anweiler  
Red-disked Alpine; Wabamun; Apr. 30, '15; J. Acorn  
Gray Hairstreak; Medicine Hat; May 3, '15; J. Scott  
Painted Lady; Edmonton; May 4, '15; A. Thyse  
Persius Duskywing; Little Fish Lake Prov. Park; May 4, '15; C. Fisher  
Silvery Blue; Edmonton; May 4, '15; J. Acorn  
Uhler's Arctic; Medicine Hat; May 5, '15; J. Scott  
Red Admiral; Ardmore; May 8, '15; M. Langlois  
Common Checkered Skipper; Medicine Hat, May 9, '15, D. McKenzie  
Anise Swallowtail; Hand Hills Ecological Reserve; May 10, '15; T. Schowalter  
Dreamy Duskywing; Redwater sand dunes; May 10, '15; G. Anweiler  
Eastern Pine Elfin; Redwater sand dunes; May 10, '15; G. Anweiler  
Freija Fritillary; Redwater sand dunes; May 10, '15; G. Anweiler  
Hoary Elfin; Redwater sand dunes; May 10, '15; G. Anweiler

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Common Ringlet; Medicine Hat; May 12, '15; J. Scott  
Melissa Blue; Medicine Hat; May 13, '15; J. Scott  
Rhesus Skipper; Medicine Hat; May 14, '15; J. Scott  
Common Roadside Skipper; Edmonton; May 15, '15; G. Anweiler  
Canadian Tiger Swallowtail; Misery Mountain; May 17, '15; J. Dupuis  
Meadow Fritillary; Battle Lake, May 18, '15; G. Anweiler  
Hobomok Skipper; Edmonton; May 19, '15; R. Brown  
Western Tailed Blue; Edmonton; May 19, '15; G. Anweiler  
Arctic Blue; Mattheis Ranch; May 21, '15; J. Acorn  
Northern Cloudywing; Edmonton; May 21, '15; G. Anweiler  
Common Alpine; Calgary; May 22, '15; R. Bercha  
Mandan Skipper; Edmonton; May 22, '15; G. Anweiler  
Macoun's Arctic; J. J. Collett Natural Area; May 23, '15; C. Bird  
Frigga Fritillary; Waiparous; May 24, '15; T. Pike  
Pearl Crescent; Dinosaur Provincial Park; May 24, '15; J. Acorn  
Northern Crescent; Edmonton; May 27, '15; R. Brown  
White Admiral (pupa); Edmonton; May 28, '15; G. Anweiler  
Brown Elfin; Bragg Creek; May 31; Felix Sperling  
Greenish Blue; Sherwood Park; May 31, '15; G. Anweiler  
Large Marble; Opal Natural Area; May 31, '15; V. Romanyshyn  
Two-tailed Swallowtail; Medicine Hat; May 31, '15; J. Scott  
Purplish Copper; Edmonton; June 1, '15; T. Haracsi  
Northwestern Fritillary; Peace River; June 4, '15; J. Dupuis  
Taiga Alpine; Fort McMurray; June 4, '15; F. Riva  
Silver-spotted Skipper; Edmonton; June 5, '15; J. Acorn  
Anicia Checkerspot; Willow Creek; June 6, '15; T. Pike  
Boisduval's Blue; Willow Creek; June 6, '15; T. Pike  
Field Crescent; Willow Creek; June 6, '15; T. Pike  
Bog Fritillary; West of Rimbey; June 7, '15; B. Acorn  
Silver-bordered Fritillary; West of Rimbey; June 7, '15; B. Acorn  
Long Dash; Edmonton; June 9, '15; G. Anweiler  
Northern Pearly Eye; Edmonton; June 9, '15; G. Anweiler  
Tawny Crescent; Elk Island N. P.; June 9, '15; A. Mioduchowska  
Tawny-edged Skipper; Edmonton; June 9, '15; J. Acorn  
Lorquin's Admiral; Beauvais Lake, June 11, '15; Bette Beswick  
Gorgone Checkerspot; McKinnon Flats (e. of Calgary); June 12, '15; C. Naugler  
Garita Skipper; Wainwright Ecological Reserve; June 13, '15; J. Acorn  
Northern Blue; Opal; June 15, '15; G. Anweiler  
Christina Sulphur; Bow Valley Prov. Park; June 16, 2015; R. Brown  
European Skipper; Edmonton; June 17, '15; J. Acorn  
Peck's Skipper; Edmonton; June 17, '15; G. Anweiler  
Pink-edged Sulphur; Rocky Mountain House; June 18, '15; D. Macaulay  
Shasta Blue; Milk River Ridge; June 18, 2015; J. Morozoff  
Uncas Skipper; Medicine Hat; June 19, '15; J. Scott  
Gray Copper; Suffield, June 21, '15; G. Anweiler  
Boreal Skipper; Skogan Pass Trail; June 25, '15; R. Brown

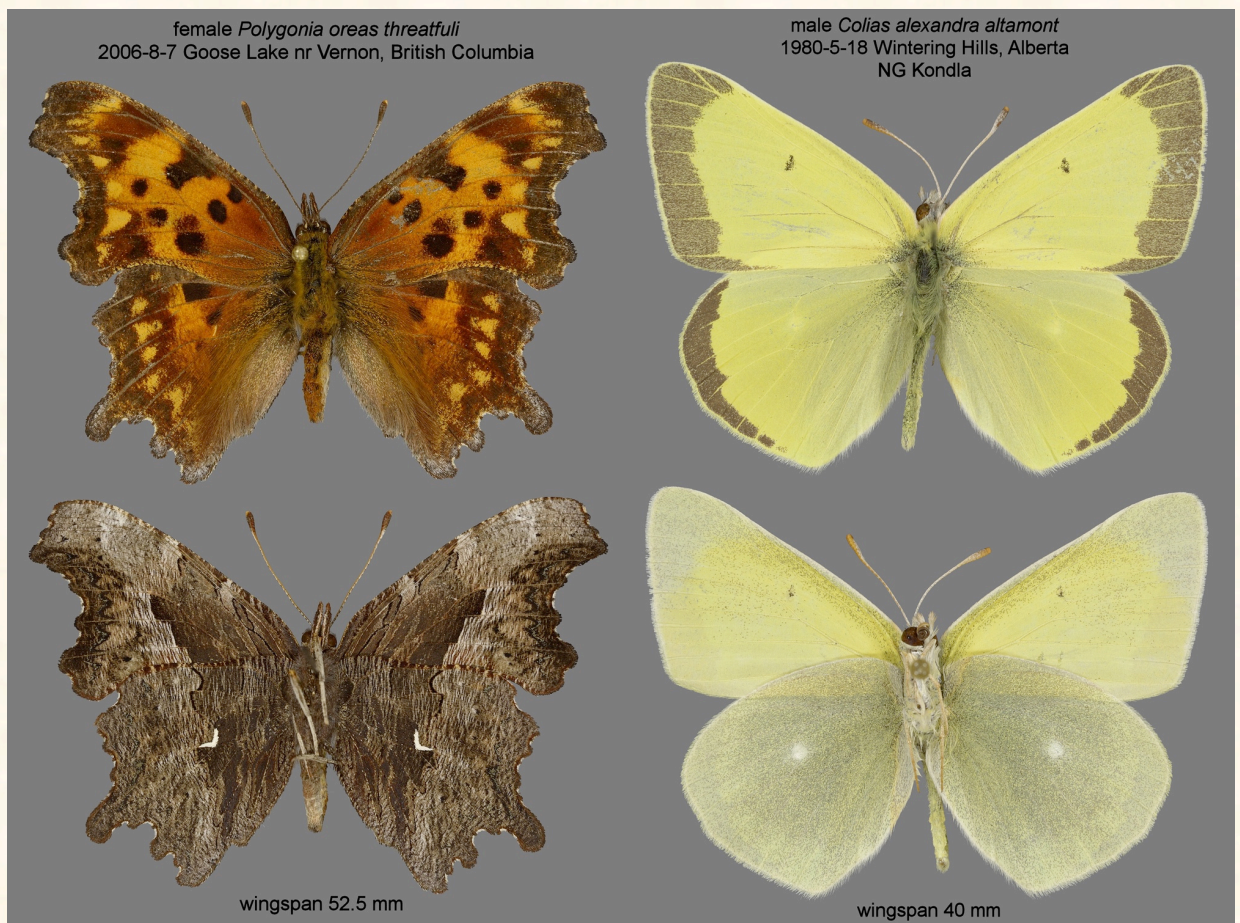


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American Copper; Pigeon Mountain; June 27, '15; R. Brown  
Thicket Hairstreak; Baldy Pass Trail, Kananaskis; June 27, '15; R. Brown  
Chryxus Arctic; Whitecourt; June 29, '15; D. Macaulay  
Cranberry Blue; Fort McMurray; June 29, '15; F. Riva  
Dorcas Copper; Fort McMurray; June 29, '15; F. Riva  
Great Spangled Fritillary; Elk Island National Park; June 29, '15; D. Delaney  
Palaeno Sulphur; Fort McMurray; June 29, '15; F. Riva  
Callippe Fritillary; Purple Springs; June 30, '15; R. Bercha  
Common Wood Nymph; Purple Springs; June 30, '15; R. Bercha  
Ruddy Copper; Purple Springs; June 30, '15; R. Bercha  
Small Wood Nymph; Purple Springs; June 30, '15; R. Bercha  
Atlantis Fritillary; Pigeon Lake; July 1, '15; F. Sperling  
Coral Hairstreak; Medicine Hat; July 1, '15; J. Scott  
Acadian Hairstreak; Red Deer River near Jenner; July 2, '15; N. Kondla  
Aphrodite Fritillary; July 2, '15; J. Scott  
Viceroy; Milk River; July 2, '15; A. Metro  
Weidemeyer's Admiral; east of Milk River; July 2, '15; A. Metro  
Giant Sulphur; Elk Island National Park; July 3, '15; D. Delaney  
Gillette's Checkerspot; Red Rock Coulee, Waterton N. P.; July 3, '15; A. Metro  
Riding's Satyr; Twin River Heritage Rangeland, July 3, '15, A. Metro  
Northern Checkerspot; Waterton N. P., July 4, '15; A. Metro  
Sagebrush Checkerspot; Dry Island Buffalo Jump P. P., July 4, '15; T. Schowalter  
Two-banded Checkered Skipper; Waterton N. P., July 4, '15; A. Metro  
Afranius Duskywing; Police Point, Medicine Hat; July 5, '15; M. Bieber  
Delaware Skipper; Dry Island Buffalo Jump P.P.; July 5, '15; R. Brown  
Striped Hairstreak; Dry Island Buffalo Jump P.P.; July 5, '15; K. Vujnovic  
Summer Azure; Donalda; July 5, '15, N. Kondla  
Variegated Fritillary; Dry Island Buffalo Jump P.P.; July 5, '15; D. Lawrie  
Astarte Fritillary; Hailstone Butte; July 7, '15; D. Lawrie  
Labrador Sulphur; Hailstone Butte; July 7, '15; D. Lawrie  
Mead's Sulphur; Hailstone Butte; July 7, '15; D. Lawrie  
Melissa Arctic; Hailstone Butte; July 7, '15; D. Lawrie  
Rocky Mountain Parnassian; Hailstone Butte; July 7, '15; D. Lawrie  
Draco Skipper; Wild Horse Mountain; July 8, '15; V. Romanyshyn  
Dun Skipper; Wagner Natural Area; July 8, '15; J. Acorn  
Mormon Fritillary; Wild Horse Mountain; July 8, '15; V. Romanyshyn  
Northern Marble; Wild Horse Mountain; July 8, '15; V. Romanyshyn  
Purple Fritillary; James-Wilson Recreation Area; July 8, '15; V. Romanyshyn  
Bronze Copper; Elk Island N. P.; July 12, '15; G. Romanchuck  
Mariposa Copper; Kleskun Hills, July 15, '15; D. Macaulay  
Lustrous Copper; Plateau Mountain area; July 19, '15; V. Romanyshyn  
Orange Sulphur; Edmonton; July 19, '15; G. Anweiler  
Zerene Fritillary; near Highway 532 summit; July 19, '15; V. Romanyshyn  
Monarch; Medicine Hat; July 21, '15; J. Scott  
Blue Copper; Waterton; July 23, '15; J. Morozoff  
Woodland Skipper; Calgary; July 26, '15; Tim Allison

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Plains Skipper; Opal Natural Area; July 29, '15; V. Romanyshyn  
Hoary Comma; Limestone Mountain; July 31, '15; N. Kondla  
Regal Fritillary; Etzikom; August 28, '15; G. Anweiler  
Stella Orangetip; Beaver Mines; June 3, 2016; V. Romanyshyn  
Pacific Fritillary; Beaver Mines; June 3, 2016; V. Romanyshyn  
Margined White; Beaver Mines; June 3, 2016; V. Romanyshyn  
Sheridan's Hairstreak; Whistler Mountain; June 5, 2016; B. Christensen  
Arctic Skipper; Beaver Mines; June 5, 2016; V. Romanyshyn  
Grizzled Skipper; Hailstone Butte; June 6, 2016; D. Lawrie  
Balder's Arctic; Wagner Natural Area; June 18, 2016; R. Brown  
Least Skipper; Dillberry Lake Provincial Park; June 18, 2016, D. Macaulay  
Arrowhead Blue; Castle River Bridge; July 1, 2016, V. Romanyshyn  
Spring White; Castle Mountain Resort; July 1, 2016; V. Romanyshyn  
Western Swallowtail; Castle River; July 1, 2016; V. Romanyshyn  
Alaska Fritillary; Mount Hamell; July 17, 2016; V. Romanyshyn  
Magdalena Alpine; Mount Hamell; July 17, 2016; V. Romanyshyn



Two species to watch for, from Norbert Kondla's excellent Flickr site:

<https://www.flickr.com/photos/118126948@N03/albums/with/72157642665738903>



# ALG Past President's and President's Messages

Vic Romanyshyn and Lisa Lumley

As the outgoing ALG president I would like to express my gratitude for all the assistance and expertise that was offered by various Guild members in achieving specific initiatives and in the everyday running of the guild during my three year term. The torch has now been passed to Lisa Lumley who will provide leadership for the next three years. As newly-elect president her enthusiasm is already on display. Thank you Lisa for your willingness to take on the job as president of ALG. Rest assured that we will all be there to help make your tenure enjoyable and successful. We can't help it!

Vic Romanysyn

I would like to thank Vic Romanyshyn for his contributions to the ALG as president for the past three years, and to say that I am honoured to serve the ALG in the upcoming year. For those of you who don't know me, here is a bit of an introduction: I grew up roaming the Borradaile Hills east of Vermilion, Alberta. I started dabbling in entomology during my summer jobs while earning my BSc degree in Agriculture. My first Lepidoptera work experience was in 1997, collecting Bertha armyworm and diamondback moth pheromone traps and doing the counts for the crop specialist in Provost.

I didn't know anything about ALG, or that collecting & curating Lepidoptera went beyond Far Side cartoons, until 2001 when Bruce Christensen volunteered in the entomology lab I was working in at the Alberta Research Council (now InnoTech) in Vegreville.

My first Lepidoptera collecting trip was with Bruce and Rob Hughes— a butterfly count at Elk Island National Park. A lot of fun and interesting memories from that day...I guess they got me hooked. Then we started on the mothing trips. The first time that I met many of the ALGers was on Akasu Hill east of Vegreville. Eventually (meaning 2004) I started graduate studies in Felix Sperling's lab at the University of Alberta, graduating in 2010. My thesis was on an incredibly complex species complex, the spruce budworm (*Choristoneura fumiferana*) and its relatives. I completed a postdoc in Quebec for the Canadian Forest Service, where I studied hemlock looper (*Lambdina fiscellaria*) and spruce budworm. I currently work at the Royal Alberta Museum in Edmonton, where I study mites and continue research projects on spruce budworm.

Lisa Lumley



# Wolley-Dod Award, and A New Executive

Lisa Lumley

Congratulations to the newly discovered Lepidoptera, and the ALG members who collected them and were nominated for the Wolley-Dod Discovery Award. An even bigger congratulations to Adrian Jones and Colleen Raymond who discovered the winner! Greg Pohl forwarded me the following notes on the nominations:

Nominees:

WINNER: Tischeriidae - *Astrotischeria solidagonifoliella* - collected by Adrian Jones, in Edmonton in 2015, reared from Evening Primrose and brought to Greg Pohl's attention by Colleen Raymond.

Autostichidae - *Gerdana caritella* - expected (BC) exotic species, identified via barcode, collected a few years ago by Bob Byers in Lethbridge.

Depressariidae - *Antaeotricha leucillana* - eastern sp. (SK) collected at Dilberry Lake in 2015 by Doug Macaulay.

Tortricidae - *Evora hemidesma* - eastern (SK) species found at Wainwright Dunes in 2015 by Doug Macaulay.

Tortricidae - *Bactra maiorana* - eastern (SK) species found at Dillberry Lake in 2015 by Doug Macaulay.

Tortricidae - *Archips rosana* - exotic pest species collected in Calgary in 2011 by Greg Pohl, recently identified via barcode.

Noctuidae - *Oligia obtusa* - expected sp. (BC, SK) collected at Dilberry Lake in 2015 by Doug Macaulay.

Papilionidae - *Papilio rutulus* - listed from AB based on specimens collected by Ted Pike, and photos by R. Klauke. Vic Romanyshyn collected a specimen in AB in 2016 that is probably this species. However, it is tattered so it could also be *P. canadensis*, or a *P. canadensis/rutulus* hybrid.

A new executive was voted in for 2017, as follows:

Lisa Lumley - President

Dave Lawrie - Vice President

Greg Pohl - Secretary-Treasurer

Doug Macaulay - Director

Vic Romanyshyn - Director and Past President

Jan Scott - Director

Cheryl Tebby - Director



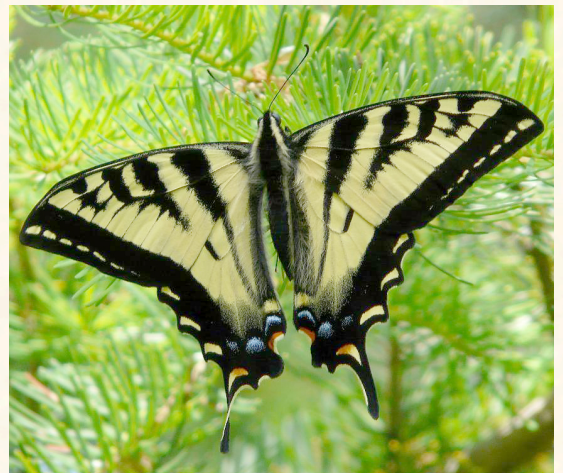


A late *Colias*: this very late white-morph female sulphur was photographed in Calgary on November 14, by Carole Challoner. It generated quite a debate on Albertaeps, but the eventual conclusion was that it is, after all, a female clouded sulphur, *Colias philodice*, and not an Orange Sulphur (*C. eurytheme*) as some of us initially believed.

### **A Tiger's Tail**

My life is harsh, my life is brief  
so let me sun upon a leaf.  
I battle others, flee the birds  
that I may woe her with my words.  
Oh, let her come, the one I seek!  
Will she appear within the week?  
The wind feels warm beneath my wings -  
is that her voice I fancy sings?  
What could YOU want? Well I suppose  
that you would like for me to pose  
so you can take your fickle shot;  
I may oblige you, dear....or not.  
For you're not her, the one I want,  
just standing there so old and gaunt.  
With no regret, I say good bye  
and off to find my love, I fly...

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## Letters to ALG

I have two boxes of Riker mounts from Greg Pohl which are available to ALG members. They range in size from about 4" X 6" to 12"X 14". Interested members can email me and I will give them my address in Vegreville, or make arrangements to bring them to an ALG meeting.

Bruce Christensen  
Vegreville

Whilst googling for something else, I just ran across the ALG newsletter regarding that interesting rearing of *Papilio canadensis*. Without the photographic evidence, I would not have believed it. Fascinating how the butterflies keep making a mockery of past knowledge/beliefs. The note suggests it is a female but the slightly opened claspers that I see make it a male.

Norbert Kondla  
Rimbey

### Three Female Tigers

*Pterourus eurymedon* 1979-6-9 Duncan, Vancouver Island, BC  
leg R Guppy



*Pterourus rutulus* 2007-6-1 Downton Cr, Coast Mtns, BC  
leg DL Threatful



*Pterourus canadensis* 2003-6-13 Darwell, AB  
leg B&J Beck



<https://www.flickr.com/photos/118126948@N03/albums/with/72157657970141375>



# Nectaring Lepidoptera Survey Project Update

Doug Macaulay and Loney Dickson

Last spring we launched the Nectaring Lepidoptera Survey Project. The goal of this two-year project is to photograph and record adult butterflies and moths feeding on host flowers in Alberta. Participants were also invited to submit records that included lepidopterans feeding on unusual material such as dung. After many months sneakily hunting for elusive lepidopterans feeding, here is a brief update on what was discovered.

One day out at Opal last May 18, 2016, Gary Anweiler and Loney Dickson, observed a Hummingbird Clearwing (*Hemaris thysbe*) feeding on a Dandelion (*Taraxacum officinale*). Below is an example of the label information that was captured.

**Species:** *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

**Collector:** H. Loney Dickson

**Observation Time:** 13:10

**Date:** May 18, 2016

On Tuesday, June 28<sup>th</sup>, Dave Laurie, with camera in hand, captured two noctuids moths feeding on a Caraway (*Carum carvi* L.) flowers. The darker moth in the image is a Bristly Cutworm Moth (*Lacinipolia renigera*) and the lighter white looks like a Speckled Rustic Moth (*Caradrina multifera*).

**Species:** Bristly Cutworm Moth (*Lacinipolia renigera*)

**Plant Host:** Caraway (*Carum carvi* L.)

**Location:** Ardrossan, AB

**Collector:** Dave Laurie

**Observation Time:** 10:40 pm

**Date:** June 28, 2016

**Species:** Speckled Rustic Moth (*Caradrina multifera*)

**Plant Host:** Caraway (*Carum carvi* L.)

**Location:** Ardrossan, AB

**Collector:** Dave Laurie

**Observation Time:** 10:40 pm

**Date:** June 28, 2016





Bristly Cutworm Moth (*Lacinipolia renigera*) and Speckled Rustic Moth (*Caradrina multifer*) nectaring at Caraway (*Carum carvi*). Photo by David Lawrie



Police Car Moth (*Gnophaela vermiculata*) at Oregano (*Origanum vulgare*). Photo by Gary Anweiler.



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On a warm July afternoon Gary once again captured a moth nectaring in his Edmonton garden. This time he spotted the infamous Police Car Moth (*Gnophaela vermiculata*) nectaring on not one but two different plants in his garden. The first sighting was at Garden Oregano (*Origanum vulgare*) and then shortly after it fluttered over to have some Baby's Breath (*Gypsophila paniculata*) nectar.

**Species:** Police Car Moth (*Gnophaela vermiculata*)

**Plant Host:** Oregano (*Origanum vulgare*) & Baby's Breath (*Gypsophila paniculata*)

**Location:** Edmonton, AB

**Collector:** Gary Anweiler

**Observation Time:** Afternoon

**Date:** July 19, 2016

On a quick jaunt to Wainwright Sand Dunes Ecological Reserve I literally stumbled across the very rare Pale Yellow Dune Moth (*Copablepharon grandis*) nectaring in a White Evening Primrose (*Oenothera nuttallii*). Luckily the moth was in a peaceful slumber so I was able to set up and grab photos of this beauty.





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**Species:** Pale Yellow Dune Moth (*Copablepharon grandis*)  
**Plant Host:** White Evening Primrose (*Oenothera nuttallii*).  
**Location:** Wainwright Sand Dunes Ecological Reserve, AB  
**Collector:** Doug Macaulay  
**Observation Time:** 5:00 pm  
**Date:** July 13, 2016

One warm dark August night, August 5<sup>th</sup> to be exact, Gary Anweiler with net in hand observed and captured an American Ear Moth (*Amphipoea americana*) feeding at 10:40pm on an ornamental Bergamot blossom (*Monarda* sp.) in his garden.

**Species:** American Ear Moth (*Amphipoea americana*)  
**Plant Host:** Bergamot blossom (*Monarda* sp.)  
**Location:** Edmonton, AB  
**Collector:** Gary Anweiler  
**Observation Time:** 10:40 pm  
**Date:** August 5, 2016

For butterflies, Andrea Jackson, took a fantastic photo of a Milbert's Tortoiseshell (*Aglais milberti*) have a drink of nectar at a Joe Pye Weed (*Eutrochium purpureum*)



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**Species:** Milbert's Tortoiseshell (*Aglais milberti*)  
**Plant Host:** Joe Pye Weed (*Eutrochium purpureum*)  
**Location:** Edmonton, AB  
**Collector:** Gary Anweiler  
**Observation Time:** Afternoon  
**Date:** July 19, 2016

There were also some fall observations made by Loney of numerous *Alucita* sp. moths gathering to feed at daisies (*Argyranthemum* sp.) in Ardrossan.

We were amazed at just how many observations folks made over the summer, especially in their postings on the ALG Facebook page! Hard to keep up as you begin to scroll through all the records. Some of these observations include European Skippers on clover at Elk Island Park, a Frigga Fritillary at a Labrador Tea blossom, Canadian Tiger Swallowtail and Clouded Sulphurs at a dandelion, a Hobomok Skippers at an Ornamental *Allium* to name a few. Gary posted a great photo of a Fireweed Clearwing Moth (*Albuna pyramidalis*) nectaring at a Shasta Daisy in his garden. The list could go on.

Overall, it was a great summer of observations by many ALG members. Many thanks to everyone who participated. We are looking forward to pulling together all the 2016 records over the winter. Keep sending us observations as you scroll through trip photos and remember to provide dates, times, locations, etc., if possible. And if we missed anyone in this article be sure to let us know by sending either Loney or me an email with your observation information.

Happy hunting!





# Dry Island Butterfly Count, July 3, 2016

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) 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 (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).

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*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 alexandra christina* - 1  
*Pieris rapae* (Cabbage Butterfly) - 1  
*Pontia (Pieris) occidentalis* - 2  
*Satyrium (Harkenclenus) titus* (Coral Hairstreak) - 1  
*Satyrium liparops* (Striped Hairstreak) - 2  
\**Strymon melinus* (Gray Hairstreak) - 1  
*Cupido (Everes) amyntula* (Western Tailed Blue) - 3  
*Glaucopsyche lygdamus couperi* (Silvery Blue) - 8  
*Plebejus melissa* (Melissa Blue) - 1  
*Aricia (Plebejus) saepiolus* (Greenish Blue) - 1  
*Aricia shasta* (Shasta Blue) - 2  
*Limnitis 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 tullia inornata* (Common Ringlet) - 9

John Acorn kept track of the Odonates that were observed. Four dragonflies 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 "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."



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Three damselflies 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 (*Melilotus 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 alexandra 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.





# Butterfly Count at the Ellis Bird Farm Bug Jamboree, August 6, 2016 Charles Bird



Once again, there was a Bug Jamboree at the Ellis Bird Farm. It was well attended by parents and grandparents with their children and/or grandchildren. Informative, bug oriented displays were set up by John Acorn, Charley Bird, Ken Frye, Dave Lawrie and Adrian Thyse. After introductions by Myrna Pearman, John Acorn entertained by singing some of his bug songs, then everyone spread out to visit the displays.

From 3 PM to 3:30 there were two Butterfly and Bug Counts. They were led by Charley Bird, John Acorn, Dave Lawrie and Benny Acorn. Myrna Pearman and Cheyenne Knight came along as scribes. The participants were Brent Bouwsema, Elspeth Bouwsema, Rowan Bouwsema, Joanne Bovee, Jeremy Brownell, Logan Brownell, Nolen Burton, Tyson Chambers, Caleb Clark, Jacob Clark, Dorothy Davies, Daniel Dillen, Liam Dillen, Laura Filion, Declan Fleming,



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Jake Fleming, Jordyn Fleming, Samuel Kohlman, Sydney Kohlman, Blake Flewelling, Chana Flewelling, Elli Goldschmidt, Bethany Lamb, Clark Lamb, Lauren Lamb, Janita Lee, Jocelyn Lee, Shelly Macauley, Gray MacDonald, Lenn MacDonald, Ben MacKay, Gabe MacKay, Josh MacKay, Kaleb MacKay, Emale Mohmad, Milan Mohmad Eleanor Rozalen, Steve Rozalen, Abigail Swenson, Kyle Swenson, Michelle Swenson, Penelope Swenson, Aaron Vaandrager, Alyssa Vaandrager, Anson Vaandrager, Avery Way, Jocelyn Way, Krista Way, Ashley Vaandrager, Brad Velton, Jayden Velton, and Marissa Velton.

It was an overcast and rather cool day and, as a results, the count results were down, but everyone had fun. Butterflies seen were: European Skipper – 6, Cabbage White – 1, Red Admiral – 1, Western White – 1, Satyr Anglewing – 1 and an Unknown Fritillary – 1. Other critters seen were: Green Grasshopper – 2, Longhorn Grasshopper – 1, Inchworm Moth – 1, Cutworm Moth (2 sp.) – 4, *Crambus perlella* (Grass Moth) – 2, Leaf Hopper – 2, Katydid – 1, and a Boreal Chorus Frog.





# The Bear Facts on Butterfly Collecting

## Vic Romanyshyn



One of the stark realities of wandering the foothills and mountains of Alberta is the chance that you will run into *Ursus americanus* or *Ursus horribilis* somewhere on your walkabouts. The more time you spend out there, the greater the possibility of crossing paths. So it was this summer, on two occasions, as I ventured out to collect the more isolated, elevated, and often localized species of butterflies to add to our Butterfly Roundup list. Keeping one eye out for bear scat or tracks on the trails, and the other for the actual animal, was as routine as looking out for butterflies. Intruding into their territory, the bear generally rules, especially if it is a sow protecting cubs, or a bear desperate for food, or a typical grizzly, which can be unprovokedly aggressive. Other bears, particularly younger blacks, will likely back down and let you pass. This was the case with my first confrontation with a black bear on my way down from the top of Mt. Hamell in early July of this summer. Tired but vigilant I trudged along a quad trail late in the afternoon after a very successful



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collecting day at the top, and as I rounded a sharp bend suddenly found myself staring at a black bear some 25 meters away. It was coming up the trail and I think it was as surprised as I was to see it, though he made no initial move to run off. Not an overly large animal, he seemed uncertain as to what to do next so I started to yell and wave my arms. I wasn't about to turn and run back uphill or jump down the steep bank off the trail if I could help it. Making myself bigger and noisy seemed the best bet. Strangely enough, I did not instinctively reach for the bear spray hanging on my belt. Fortunately, the yelling and arm flailing convinced him I was too menacing to challenge so he turned and leapt into the bush. Relieved, I stood there for a few minutes to be sure he was a good distance from the trail before noisily continuing past where he entered the underbrush. I did not see or hear him again so I must have scared the scat right out of him!

Later in July, Dave Lawrie and I made a trip to Cardinal Divide and Prospect Mountain south-west of Cadomin. On our first day we did an extended hike along a well used quad/dirt bike trail running some 15 km along the valley skirting the west side of the Tripoli, Cheviot, Prospect Mountain chain. We left early in the morning before the bikers and quadders began stirring. About halfway along the trail we forded a small river and came across relatively fresh bear tracks indicating the animal was heading the same direction we were going but did not give us conclusive evidence of species. We were on what appeared to be a grassy flood plain with good visibility. There were pockets of trees along the trail but no dense forest, so we chose to continue our hike, though talking more loudly now and constantly watching out for the bear. Fortunately it never did show itself that morning and on the return walk there had been enough bike and quad activity to drive off any animals that might have been in the area. Two days later, however, it was a different story. This was our last day of the trip and we had planned to climb up the slopes of Tripoli Mountain but the clear skies of the morning altered our plans. We had hiked to the upper slopes of Prospect Mountain along the Prospect Creek trail in pursuit of *Boloria alberta* the day before but the windy, mainly overcast conditions kept butterflies from flying so we decided to do the hike again given the apparent sunny skies and potential improved conditions up there that morning. Somewhat elated by the weather we packed up and headed for Prospect Creek. To make the walk easier and a bit quicker we decided to go light—snacks instead of lunch, minimal drinks, no cameras or other equipment of weight. I even left my bear spray behind as we had not seen any sign of bear up there the day before. Minimally laden we set off, nets in hand, at a good pace which would have set a dog to panting in short order. After a good start to our walk we became aware of low level clouds on the north-west horizon moving

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quite rapidly in our direction. About an hour later we had come to a spot where the trail headed into heavy forest and became much steeper. Here we stopped, had a drink, and pondered our next move. By now heavy clouds had rolled in and what looked like a promising sunny morning two hours before now seemed destined for overcast skies and showers. After some deliberation we decided to turn back. We hadn't gone far when two people rode up the trail on horseback. After a chat with the man and his female partner we continued our descent as they rode off up the trail. Less than a minute later we hear the sound of galloping horses and a shout from the horseman "There's a grizzly on the trail." We turned around and there in the general vicinity of where we had stopped for a drink and pondered what to do just a few minutes before, stood a large grizzly. It wandered about smelling the ground, gave a brief look our way and disappeared into the trees. To this day I wonder if we would have run into that beast had we continued our climb and what might have been outcome of the encounter. Maybe we were just lucky the clouds rolled in and we made the decision to turn back. Maybe we wouldn't have come face to face with the bear on the trail if we had continued on. Maybe he was a nice Grizzly? Probably not!









# Butterfly Bustle at Elk Island National Park

July 23, 2016

Loney Dickson, Rob Hughes, Jaimee Dupont,  
and Gary Anweiler

Last summer, Jaimee Dupont of Nature Conservancy Canada, was invited by the Friends of Elk Island to lead a butterfly walk at Elk Island National Park. She passed along the invitation to the Alberta Lepidopterists' Guild, whereupon Gary Anweiler, Loney Dickson, and Rob Hughes decided to join the outing. We met a number of the Friends, plus folks from the general public, at the Tawayik Lake staging area, where the Friends prepared a barbecue lunch to start us off at 11:00.

Jaimee, Loney and Gary gave introductions, described how to recognize the families of butterflies, and explained netting methods for those who had never been on a butterfly count before. Nets were supplied by Nature Conservancy Canada.

Following lunch, about 15 people (with nets in hand), including a young toddler, headed out on the Tawayik Lake Trail. Gary was our Butterfly Guru for the trip and people quickly learned to catch up to the group whenever people began to gather around Gary.

The trip day had max. 21.9 °C and min. 12.7 °C temperatures, with 30 km/hr winds. In addition, 5 mm of rain had fallen the previous day. So it was not a day for swarms of butterflies, but the odd flower, plus some pushing through nettle fields along the trail provided some great captures and butterfly viewing. Several Northern Pearl Crescents (*Phyciodes cocyta*) and Satyr Anglewings (*Polygonia satyrus*) were captured for observation along the way. One Gray Comma (*Polygonia progne*) was the highlight discovery for this first trail. At one point, Rob and amphibian expert Brian Eaton became stars with the discovery of a gorgeous Wood Frog, which really captured the attention of our youngest participant.

After returning to the parking/picnic area about one hour later, we said goodbye to a few participants and then headed off on the gated fire road, which heads towards the group campground and the west boundary of the park. This route provided several opportunities for great chases (the first lead by Gary) up the road and across grassy areas after Fritillaries. These chases saw the group change from a shy, embarrassed bunch of butterfly hunters to a group of crazed Lepidopterists stalking or sneaking up, or running in all directions after their quarry. With the weather improving, we ended up getting several more species, with European Skippers being the most common for the day, followed



by the Northern Pearl Crescents. It is interesting to note that European Skippers were not seen in Alberta until the late 1980s. Butterflies of Canada, published in 1998, (Layberry et al, 1998) shows a single map dot for Alberta. The species spread FAST after that. The Giant Sulphur was the most exciting find of the day. All in all, the group managed to find a surprising ten species of butterfly.

Thanks again goes to the Friends of Elk Island Society for setting up the hike and providing lunch, and to Jaimee for leading and pulling together some able assistants for the day.

**Species list & number of individuals observed.**

<i>Thymelicus lineola</i> (European Skipper)	30+
<i>Polygonia satyrus</i> (Satyr Anglewing)	4
<i>Colias philodice</i> (Clouded Sulphur)	5
<i>Colias gigantea</i> (Giant Sulphur)	1
Sulphur spp.	4
<i>Pieris oleracea oleracea</i> (Mustard White)     4	
<i>Speyeria cybele</i> (Great Spangled Fritillary)	2
<i>Speyeria aphrodite</i> (Aphrodite Fritillary)	1
<i>Polygonia progne</i> (Gray Comma)	1
<i>Phyciodes cocyta</i> (Northern Pearl Crescent)	14
<i>Cercyonis pegala</i> (Common Wood Nymph)	3
Pyralid moths	4
Police Car Moths	3

Distance traveled (one way):	0.5 km + 1.4 km
Start time	12:30
End Time	14:52



R. Hughes





R. Hughes



R. Hughes



R. Hughes





R. Hughes



*Tymelicus lineola* AB Open Creek Dam 16-00204 GG4



# Lepidoptera in Alberta Crops

Scott Meers, Alberta Agriculture and Forestry  
photos by Shelley Barkley



As you are likely very aware some Lepidoptera can be significant pests. In my role as an entomologist for Alberta Agriculture and Forestry I lead a program that tracks pests of field crops, several of which are Lepidoptera. I would like to give you a quick summary of what we do and what we have been seeing.

Our program does seven major insect surveys every year: grasshoppers, pea leaf weevil, cabbage seedpod weevil, bertha armyworm, diamondback moth, wheat midge and wheat stem sawfly. In addition we track and provide information on many other pests and insects of concern.

Bertha armyworm (Noctuidae: *Mamestra configurata*) is one of the most significant and potentially damaging pests of canola (also flax and faba beans) in Canada. We run a pheromone trap-line for these moths, with over 200 volunteers that look after up to 350 locations across Alberta. We have created an automated mapping system that allows the volunteers to record their weekly trap catch on line. These numbers are then used to create updates to the risk map on our webpage. The map is updated within minutes of the cooperator submitting their counts. Both risk and damage were virtually nonexistent in 2016, as we are currently in a low part of the cycle, driven by entomopathogens and parasitism.





Bertha armyworm, larvae

*sjbarkley*

Diamondback moth (Plutellidae: *Plutella xylostella*) is an occasional pest of canola and other plants in the family Brassicaceae. We maintain a sentinel site monitoring system of about 30 locations annually. The purpose of this survey is to catch early season migrations, measure their intensity and calculate risks based on this information. A small early season flight in 2016 did not materialize into any economic issues. There is an ongoing debate as to the ability of this insect to overwinter in Alberta, although generally we accept that it migrates annually into the Canadian prairies. A wind trajectory system is also in place to track wind parcels that could bring this insect in from source populations in the USA.



Diamondback moth, adult and larva

*sjbarkley*

*sjbarkley*





Cutworms (Noctuidae): army (*Euoxa axillaris*), redbacked (*Euoxa ochragaster*), pale western (*Agrostis orthogonia*), dingy (*Feltia* spp. complex). Cutworms were a very significant issue throughout Alberta in 2016, many crops had to be reseeded due to cutworm feeding damage. Above are listed the four main culprits but by far the most common was redbacked cutworm. We maintain an online reporting tool that allows farmers and agronomists to report cutworm issues. This is a live reporting tool that helps the farming industry know where the issues are, so they know to check their fields.

European corn borer (Crambidae: *Ostrinia nubilalis*) is starting to take advantage of the increased acres of corn being grown in Alberta. We investigated two reports of very serious damage to corn fields from this insect in 2016. Interestingly, despite its name, this insect has a very wide host range and is documented to cause issues in potatoes and hemp (both important crops in Alberta).

Western bean cutworm (Noctuidae: *Striacosta albicosta*). Not yet reported from Alberta as far as I know. We maintain pheromone surveillance for this potential pest of beans and corn.

We have documented zebra caterpillar (Noctuidae: *Melanchra picta*) and purple lined sallow (Noctuidae: *Pyrrhia expirmens*) feeding on canola although neither are considered pests.

For the past several years wheat head armyworm (Noctuidae: *Dargida*



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*diffusa*) has occurred in scattered locations across the province but numbers were very low in 2016. We have documented very high levels of wasp (*Cotesia* spp.) parasitism in Alberta.

We have been watching for grey tortrix (Tortricidae: *Cnephasia stephensiana*) in alfalfa after it was reported on the British Columbia side of the Crowsnest Pass. I would be interested if anyone is picking this species up in their light trapping.

If anyone has concerns or comments please feel free to contact me via email: [scott.meers@gov.ab.ca](mailto:scott.meers@gov.ab.ca). You can check out our program at: [www.agriculture.alberta.ca/bugs-pest](http://www.agriculture.alberta.ca/bugs-pest)



Bertha armyworm, adult



# Additions and Corrections to the Alberta Lepidoptera List

Greg Pohl and Doug Macaulay

This is the 2016 update to the Checklist of the Lepidoptera of Alberta (Pohl et al. 2010), which is updated annually in the ALG News (Pohl et al. 2011, 2012, 2013, 2015; Pohl 2014). This year we are reporting ten new species including one historical published record that was overlooked. We are removing two species from the Alberta list.

Vouchers are deposited in either the Canadian Forest Service collection in Edmonton, Alberta (NFRC) or the personal collections of GRP and DAM. The total number of reported Alberta species now stands at 2489.

We thank Colleen Raymond, Bob Byers, Don Wright, and Cory Sheffield for providing specimens and information. Angela Telfer and Jeremy deWaard of the Barcode of Life Initiative facilitated DNA barcoding of specimens.

## **Tischeriidae**

33.5 *Astrotischeria solidagonifoliella* (Clemens, 1859). New record.

A series of reared specimens were collected in Edmonton in 2015 by Adrian Jones, and brought to GRP's attention by Colleen Raymond. They were reared from seed pods of Evening Primrose (*Oenothera* sp.). This species was previously known from eastern Canada as far west as Manitoba. This species, and Adrian and Colleen, are the winners of the ALG's Wolley-Dod Discovery Award in 2016, recognising new Alberta Lepidoptera discoveries.





## Gracillariidae

80 *Micrurapteryx occulta* (Braun, 1922). New status.

The taxon *Parectopa albicostella* Braun, 1925 was synonymized with *P. occulta*, and moved to the genus *Micrurapteryx* by Kirichenko et al. (2016). This species was well known in Alberta since Bowman (1951), under the name *P. albicostella*.

## Autostichidae

237.1 *Gerdana caritella* Busck, 1908. New record (previously, "expected").

This species, long suspected to occur in Alberta, has been confirmed based on a specimen collected in Lethbridge, Alberta, on 12 August 2004 by J. R. Byers. It was recently identified via DNA barcode.

## Depressariidae

153 *Depressaria radiella* (Goeze, 1783). New status.

This is a recently discovered senior synonym of *D. pastinacella* (Duponchel), the introduced Parsnip Webworm. As the older name, it takes precedent as the new valid name (Karsholt et al. 2004).

129.1 *Antaeotricha leucillana* Zeller, 1854. New record.

A specimen was collected on 11 Aug. 2015 at Dillberry Lake Provincial Park, by DAM. It was previously known in eastern Canada as far west as Saskatchewan.





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## Tortricidae

424.1 *Acleris placidana* (Robinson, 1869). Rediscovered record.

This Holarctic species was reported from Alberta by Obraztsov (1963), but that record was missed by Pohl et al. (2010). No Alberta vouchers have been located, but they likely reside in a collection in the USA. The species is otherwise known from B. C. and eastern Canada.

494.1 *Archips rosana* (Linnaeus, 1758). New record.

This introduced species, known as the European Leafroller, has been reported from B. C. and eastern Canada (Doganlar & Bierne 1978). A specimen collected in downtown Calgary on 22 July 2011 by GRP was identified recently via DNA barcode.



538.1 *Bactra maiorina* Heinrich, 1923. New record.

A specimen of this species was collected at Dillberry Lake Provincial Park on 30 Aug. 2015 by DAM. It was previously known in Saskatchewan.



585.1 *Evora hemidesma* (Zeller, 1875). Reinstated record.

This species was reported from Alberta by Bowman (1951), but his voucher specimens, now deposited in the University of Alberta Strickland Museum, were misidentified specimens of *Hedya ochroleucana* (Frölich), and the species was listed as "erroneous" by Pohl et al. (2010) (#E023). On 30 Aug. 2015, DAM collected an authentic specimen at Dillberry Lake Provincial Park.



595.01 *Ancylis floridana* (Zeller, 1875). New status.

This is a new name in North America for the taxon previously listed as *A. comptana* (Frölich). The true *A. comptana* is restricted to the Old World, and North American populations have recently been recognised as a separate species (Gilligan et al. 2014). The name *floridana* is the oldest North American synonym, so it becomes the valid name for our species. *Ancylis comptana* should be added to the Erroneous Species List, at #E017.2.

598.01 *Ancylis diminuatana* Kearfott, 1905. New status.

As clarified by Gilligan et al. (2016), the species *A. diminuatana* Kearfott is not the same species as *A. diminutana* (Haworth)— note the missing letter 'a' in the latter. They were described as separate species on different continents. For many years, the name "*A. diminutana* (Haworth)" was used in North America, and it was reported from Alberta by Pohl et al. (2010), with the taxon "*A. diminuatana* Kearfott" treated as a synonym of it. However, "*A. diminuatana*



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Kearfott" is the correct name for the North American species; "*A. diminutana* (Haworth)" is strictly Palaearctic (the latter can be added as #E017.3 in the Erroneous Species List).

597 *Ancylis uncella* ([Denis & Schiffermüller], 1775). New status.

This is a new name for the taxon previously known in North America as *A. carbonana* Heinrich. Gilligan et al. (2016) synonymized *A. carbonana* and recognised the Holarctic taxon *A. uncella*.

663 *Pelochrista lathamii* (Forbes, 1937). Removed from Alberta list.

Records of this species from Alberta were misidentified, and have been corrected to #662 *P. morrisoni* (Walsingham). *P. lathamii* becomes #E025.1 on the Erroneous Species List.

## **Crambidae**

937.1 *Eudonia vivida* Munroe, 1972. New record.

A specimen collected on 25 July 2006 along the Snaring River road in Jasper National Park was identified recently via DNA barcode. It was previously known from B. C..



998 *Evergestis palousalis* Munroe, 1974. New status.

Pohl et al. (2010) listed *E. obscuralis* Barnes & McDunnough, 1914 for Alberta, but that taxon is an invalid name (there is an older "*Evergestis obscuralis*" described by Hampson in 1912). Munroe et al. (1995) proposed the replacement name *E. obscuralias* (note the extra letter 'a'), but it is now considered a subspecies of *E. palousalis* in the online Pyraloidea catalog



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(Scholtens & Solis 2015).

1031 *Pyrausta inaequalis* Guenée, 1854. New status.

Pohl et al. (2010) listed this species under the name *P. subaequalis* Guenée, which is now a synonym of *P. inaequalis* (Scholtens & Solis 2015).

## **Erebidae**

1642.1 *Spilosoma pteridis* Edwards, 1874. Confirmed record/new status.

After a convoluted journey, this species arrives back on the Alberta list due to synonymy, not discovery. The valid name for *S. pteridis/danbyi* populations in Alberta has flipped back and forth over the past half century. Bowman (1951) listed *S. pteridis*, and *danbyi* was considered a synonym of it at the time. Then Ferguson et al. (2000) reinstated *S. danbyi* to full species status. Pohl et al. (2010) listed *S. danbyi* as the confirmed Alberta species, with *S. pteridis* listed as "expected". Now *S. danbyi* has once again been synonymized with *S. pteridis*, by Lafontaine & Schmidt (2015). Thus *S. pteridis* is the valid name of the Alberta species, and #1643 *S. danbyi* should be removed.

1716.1 *Catocala sordida* Grote, 1877. Correction.

This species was listed as "expected" for Alberta by Pohl et al. (2010), and then confirmed by Pohl (2014) based on a specimen in the Royal Saskatchewan Museum from Gordon Lake, near Ft. McMurray. That was a databasing error; that specimen was in fact from a Gordon Lake in Saskatchewan, not Alberta. The species remains "expected" in Alberta, so it is coded as "erroneous but expected, EP. "

## **Noctuidae**

1943.1 *Oligia obtusa* Smith, 1902). Confirmed record.

This species, long expected in Alberta, was collected at Dillberry Lake Provincial Park on 1 Sept. 2015 by DAM. It is provisionally placed in the genus *Oligia*, but may actually belong elsewhere.

1964 *Papaipema insulidens* (Bird, 1902). New status.

Three *Papaipema* species; *P. insulidens*, *P. pertincta* Dyar, and *P. birdi* (Dyar) have recently been recognised as a single variable species that occurs across the Boreal zone (Lafontaine & Schmidt 2015). Alberta records were previously listed as *P. birdi*, but *P. insulidens* is the older name.





*Papaipea insulidens*, photo by Jim Vargo, Moth Photographers Group



A blast from the past: mothing near Medicine Hat, August of 2005, with Randy Dzenkiw, Sarah McPike, Tenille Camphaug, and Jesse Acorn