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THE OFFICIAL NEWSLETTER OF THE ALBERTA LEPIDOPTERISTS' GUILD

ALG News

Yucca Moths at Onefour

Greg Pohl

Three species of yucca moths (Prodoxidae) are known in Alberta; *Tegeticula yuccasella* (the "yucca moth") and *Prodoxus quinquepuntellus* (the "bogus yucca moth") have long been known from Alberta, but a third, *Tegeticula corruptrix* (the "corrupt yucca moth") is a recent discovery. All three species are dependent on yucca plants, and each has its own unique relationship with the plants, with a varying degree of cooperation and/or exploitation. Yucca plants are known in Alberta from only two sites near the Onefour Research Station in the extreme southeastern corner of the province. Yucca moths have only been found at one of these sites, and are currently being evaluated as candidates for protection under the Species At Risk Act.

Recently, while checking identifications of prodoxid specimens in various Alberta collections, I came across several series of yucca moths, all collected in 1950 by several different people. The Strickland Museum at the University of Alberta has a series of specimens collected by Dr. E.H. Strickland and K. Bowman. Most of the specimens were collected by Kenneth Bowman, on July 9, but a few are from earlier dates; June 28, June 30 and July 2, 4, and 6. All of Dr. Edgar Strickland's specimens were collected on July 9. All three species were present in this series.

While at the Agriculture and Agri-Food Canada Lethbridge Research Station two years ago, I was going through a stack of old Schmitt boxes piled in a basement hallway, under a thick layer of dust and rubble from recent renovations. In those boxes I found two series of yucca moths. One series (*T. yuccasella* and *P. quinquepunctellus)* was labeled simply "Lost River 9.7.50", with no collector name. The other series

Yucca Plant near Onefour

(all three species) was labeled "Cypress Hills Alta., 9.VII.1950, A. Hewitt". This potentially represented a second locality for these rare moths, so I decided to do a little sleuthing. I was assured by botanist/entomologist Charley Bird that no yucca plants were known to exist in the Cypress Hills, 75 km North of the Onefour Site. Then I remembered that a certain Art Hewitt, a founding member of the Entomological Society of Alberta, had recently attended the 50th Annual meeting in Lethbridge. I tracked down a phone number and gave him a call. He remembered the field trip quite clearly. Long retired now, he was a technician working for R.W. Salt at AAFC Lethbridge at the time. Apparently a group of about half a dozen entomologists, led by Dr. Strickland, had gone out to the Cypress Hills for a weekend collecting trip in 1950. On July 9, they had made a day trip to Onefour to collect yucca moths. Mr. Hewitt had no recollection of any yucca being found at the Cypress Hills; he was sure the specimens had gotten incorrectly associated with the Cypress Hills material and had thus been mislabeled. Besides himself and Dr. Strickland, he thought that probably Stuart (Mac) McDonald and Dr. Norman Church were on the trip, as well as a couple of others. Based on the collection dates, I suspect that Kenneth Bowman had gone down a week ahead of the others, and likely met them there. He was probably tipped off about the yucca by someone working on the Onefour station, which was (and is) an area where various grazing regimes are studied.

When I look at these old specimens I wonder how similar the July 1950 trip was to our own collecting adventures, such as the Biological Survey of Canada trip to Onefour in June 2001. What would it have been like going out collecting with Bowman and Strickland? Was it all very formal and serious, or were they like excited kids chasing after cool stuff?

Inside this issue:

Special points of interest:

- New moths for the Alberta List! (pages 2, 3 & 4)
- A new species to be described! (page 3)
- What is the ALG? (page 4)

Alberta Sphinx Moths by Gary Anweiler

Sphinx Moths are rather large beasts. As Dave Lawrie demonstrated, the larvae of Big Poplar Sphinx (*Pachysphinx modesta*) are probably the heaviest insects in Alberta. As big insects they attract a fair amount of attention. Many are also among the most beautiful of our moths, and a number of species fly during the day when normal folks are up and about. Consequently it is easy to assume they are a well-known group, with few surprises to offer. Not so!

In the short time that ALG has been active, we have added four species to the list, the Northern Pine Sphinx (*Lapara bombycoides),* Hog Sphinx (*Darapsa pholus*), Slender Clearwing (*Hemaris gracilis*) and Elm Sphinx (*Ceratomia amyntor*). We have also added new distribution records for a number of species for which there were only one or two records. The Wild Cherry Sphinx (*Sphinx drupiferarum*) was known from a single old record from Red Deer; we now have records from a number of sites in east-central Alberta, with 18 in the traps in a single night at Edgerton last spring. Bowman reported a single record of the Waved Sphinx (*Ceratomia undulosa*) from the Lloydminster-Wainwright area, but we have found it from Writing-on-Stone to Redwater, with both adults and larvae found in Edmonton. We have added many new localities for the two day-flying *Proserpinus*, the Yellow-banded Day Sphinx (*P. flavofasciata*) and the Juanita Sphinx (*P. juanita*). And this year for the first time, if I am not mistaken, the introduced Spurge Sphinx (*Hyles euphorbiae*) has made it up from the southern grasslands north to Edmonton.

> *"we have added four species to the list"*

Within this small group (24 Alberta species to date) there are still several taxonomic issues needing resolution. The form of the Big Poplar Sphinx found in the southern grasslands region has been identified as both *P. occidentalis* and *as P. modesta*. One of our most common beautiful species, the One-eyed Sphinx (*Smerinthus cerisyi*)

Smerinthus cerisyi

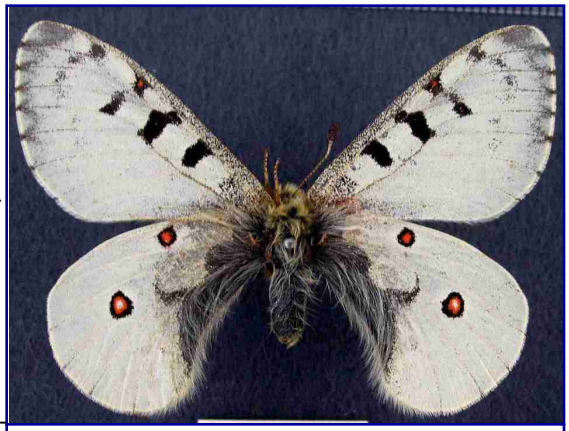
is not entirely what it seems either, and it looks like the form found in southwestern Alberta is a second species, *S. ophthalmica*. Chris has been looking into this.

Sphinx moths are powerful flyers, and southern species periodically show up far to the north of their normal range. This behavior, perhaps in combination with global warming, will undoubtedly result in additional species being added to Alberta list in coming years. May it appear in your trap or at your light. In my experience it beats the heck out of finding a new noctuid!

Parnassius smintheus manitobaensis Bryk & Eisner, 1935 - a new race of parnassian butterfly ostensibly described from End Mountain, Mt. Exshaw in Manitoba by Joe Belicek

It was not exactly earth shattering news when Bryk and Eisner described another new race of parnassian butterfly in 1935, but the event caused few stirrings in Ottawa. According to the description, there were high mountains in Manitoba from where this butterfly came from. And this was news. And, previously, as it remains to this day, *Parnassius* butterflies were not known to occur this far east!

Dominion entomologist James H. McDunnough was tasked to investigate this find. In 1936 he writes his verdict in Can. Entomologist, 68: p.43: - the type locality "End Mountain, Mt. Exshaw in Manitoba" is in fact near Exshaw, Alberta. In his investigations Mr. McDunnough was even able to locate and talk to the person who supplied the specimens to Bryk. He was assured that the specimens had proper labels before they left Canada, identifying them as Alberta material.



Parnassius smintheus manitobaensis

In a follow-up article, Can. Ent. 68: 216-225, J.H. McDunnough wrote a critical review of the treatment on North American *Parnassius* species by Felix Bryk.

On my European trip this past summer I was able to photograph the 'Corpus Delictus' as one of the co-types in the Museum of Natural History in Vienna. From time to time, it is useful to reflect on the history ..... "They even invented mountains in Manitoba!"

Ethmia moths in Alberta by Greg Pohl

Recently Doug Macaulay brought a box of micromoths to me, that he'd been collecting in wondrous nooks and crannies around Alberta. The biggest and brightest of the bunch was a fine specimen of *Ethmia albicostella* (Beutenmüller 1889). This is a handsome moth with a wingspan of over 2 cm - pretty big by micromoth standards. To my knowledge, Doug's specimen is the first one collected in 40 years in Alberta. It came from the Wainwright Dunes, pretty far removed from previous records of Cardston and Kananaskis. The host of this species is reported as *Lithospermum*; we'll need some more records to get a better idea of its ecological requirements. The image

Ethmia albicostella* & *E. monticola

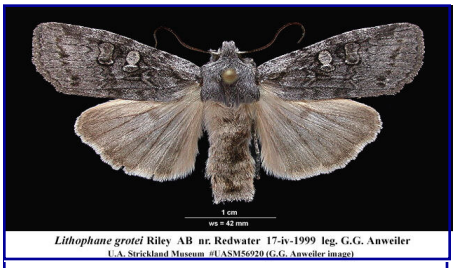
here was pulled off a website entitled "Moths of North Dakota" (http://www.ndsu.edu/ndsu/ndmoths/names/1001.htm); it was taken by Gerald Fauske. The image on Opler's inappropriately named "Moths of Western North America" website (http://www.npwrc.usgs.gov/resource/distr/lepid/moths/usa/842.htm) looks much paler than the Alberta specimens I've seen.

On first glance, ethmiids look like small lithosiine arctiids such as *Crambidia* or *Eilema*. They used to be placed in their own family, but now are considered a subfamily of Elachistidae. In North America, the highest diversity of *Ethmia* species is in the Southwest. The only other species known in Alberta is *Ethmia monticola*; its wings are a beautiful steel-blue with black dots, and its abdomen is covered in orange scales. Like *E. albicostella*, it has been collected in prairie and montane habitats.

Yet Another New Noctuid for Alberta

by Gary Anweiler

While visiting the Canadian Moths website last week I noted that several species of *Lithophane* that have been listed for Saskatchewan are not listed for Alberta. Two of them (*L. laticinerea* and *L. unimoda*) looked a lot like one I had from Edgerton. They all look a lot like our common *L. georgii*, but like nothing else on the Alberta list. I thought they looked like *L. laticinerea* and Jim Troubridge thought they resembled *L. unimoda*. The good news is the male genitalia have good characters, and the genitalia of all three are illustrated in Forbes' "the Lepi-



Lithophane grotei

doptera of New York and neighboring states. Part III." So I gutted one I had picked off the MV light sheet during one of our trips to Redwater a couple of springs ago – and to my surprise it was neither of the above, but instead *L. grotei* !! This one had not been found west of Ontario. Another moth illustrating how little work has been done in the boreal forest across the prairies, except by ALG here in Alberta.

I received confirmation of my identification from the head office today (the CNCI), so it is "official". Check the *Lithophane* in your collections, and add this one to your lists.

New *Dodia* species discovered at Holmes Crossing Ecological Reserve

by Doug Macaulay

On June 9th, I awoke to go pick up my UV traps from the Holmes Crossing Ecological Reserve and to my surprise the new *Dodia* species was amongst the few collected that morning.

I believe this is the 5th specimen ever collected and is currently an undescribed species. Previous locations include Harlan, Saskatchewan, the Caribou Mountains and now in Holmes Crossing Ecological Reserve.

From a conversation with Chris Schmidt, who collected a couple specimens from the Caribous, we both felt that its habitat may be low areas in Pine forest that contain mats of blueberry with overhanging alder. Of course we have no confirmed host plant records

Unknown *Dodia* species resting on ground at Holmes Crossing Ecological Reserve.

but I wouldn't be surprised if it fed on blueberry.

Anyhow, Chris and I are planning to team up and attempt to put a name to this new species in the next little while and I encourage anyone else who lives near pine forest to run a trap next June in the suspected habitat. There is a definite need for a few more specimens.

The current localities and number of specimens is as follows:

- 1 from Harlan, Saskatchewan

- 3 from Wentzel Lake in the Caribou Mountains of Northern Alberta

- 1 from Holmes Crossing Ecological Reserve

What is the ALG?

The Alberta Lepidopterists' Guild (ALG) is a non-profit society made up of amateur and professional Lepidopterists. Our objective is to support and encourage the study and appreciation of Alberta Lepidoptera (butterflies and moths). We coordinate research projects, facilitate the exchange of information among members, and host events where people can collect and look at Lepidoptera and exchange information and ideas. We have an elected executive, and hold at least one annual general meeting to handle society business. We also host a members-only electronic bulletin board, and numerous scientific and social events throughout the province.

Alberta is a province in western Canada which includes a diverse range of habitats, including mountains, boreal forest, and prairie. Over 3000 species of butterflies and moths are thought to live here; so far about three-quarters of these are known.

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To contact us, you can reach the ALG President Greg Pohl at:

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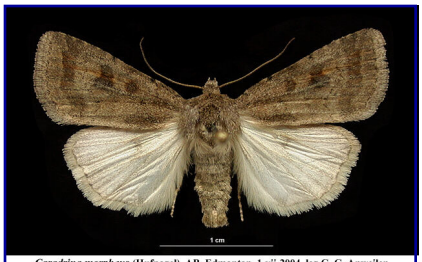
daytime phone: (780) 435-7211

We're on the Web! *Visit us at* *www.biology.ualberta.ca/uasm/alg/index.html*

Caradrina morpheus (Hufnagel) the "Mottled Rustic", "Brungult Lövfly" or "Ruskonurmiyökkönen." by Gary Anweiler

First found in Alberta in Edmonton, July 2004. This is a European species that has managed to find its way to both the east and west coasts of Canada. We have no idea from which direction it arrived, but as it has apparently not yet been found in SK or MB, BC is the most likely origin. About a dozen specimens were taken in the Weisgarber-Anweiler back yard between July 1-21, 2004.



Caradrina morpheus

Wolley Dod Award Winner for 2004!

This year's Wolley Dod Award goes to Chris Schmidt for his discovery of a colony of the rare, day-flying Flower Moth *Schinia avemensis* (Gold-edged Gem). Chris found this specimen in a small area of sand blow-outs along the eastern Red Deer River. This insect was previously known in Canada only from a single colony in the Spirit Dunes near Brandon Manitoba (the type locality is Aweme MB), and globally from there and two sites in Colorado. Schmidt later found an old unidentified specimen of the same critter, caught by Dr. E.H. Strickland at Medicine Hat in 1939 - thereby proving that they are not new to Alberta - just to our awareness.

Schinia avemensis

The Wolley Dod award is given annually for the most significant Alberta Lepidop-

Upcoming Events

Feralia Festival 2005

John Acorn is hosting this exciting event once again on March 5th. It is a potluck starting at 5:00 pm and this years theme is "dress like a larva." His address is 132 Walsh Crescent.

Waterton Bioblitz

On July 7-12, the Biological Survey of Canada is planning a collecting trip to Waterton Lakes National Park and surrounding area. A collecting permit will be arranged, in exchange for species lists from the collectors. All serious collectors are welcome to attend. We will be planning several specific trips to habitats in and around the park over several days. Contact Greg Pohl (gpohl@nrcan.gc.ca) for details.

2005 Joint Annual Meeting

From November 3rd to 6th the Entomology Society of Alberta and the Entomology Society of Canada are hosting a joint meeting in Canmore, Alberta at the Radisson Hotel and Conference Centre. For more information or for contact and registration information visit www.esc-canmore.org.

Chief Editor: Doug Macaulay

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