

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA

The Entomological Society of British Columbia is a scientific Society founded in 1902 for the advancement of entomological knowledge in the province.

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BOREUS

**NEWSLETTER OF THE ENTOMOLOGICAL SOCIETY
OF BRITISH COLUMBIA**

Volume 23, Number 2

December 2004

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Note from the Editor: Please provide contributions for publication in *Boreus*, whether large or small!

Publications of the ESBC

Journal of the Entomological Society of British Columbia

The *Journal of the Entomological Society of BC* is published annually. Papers for the *Journal* need not have been presented at meetings of the Society, nor is it mandatory, although preferable, that authors be members of the Society. The chief condition for publication is that the paper has some regional origin, interest or application. Line drawings or photographs as candidates for the cover are also accepted. Contributions should conform to the standards outlined in the *Journal* and the Website (<http://esbc.harbour.com/>), and should be sent to the Editor, Dr. Ward Strong, BC Ministry of Forests, 3401 Reservoir Road, Vernon BC, Canada V1B 2C7; tel 250-549-5696; fax 250-542-2230; e-mail Ward.Strong@gems7.gov.bc.ca.

The deadline for submissions to be included in the 2004 issue is **September 1, 2004**.

Boreus

Boreus, the Newsletter of the Society is published in June and December. It contains entomological news, comments, reports, reviews and notices of meetings and other events. While emphasising the Society's affairs, *Boreus* provides members with a forum for their views and news of British Columbia entomology. Please send correspondence concerning *Boreus* to the Editor, Cris Guppy, 4627 Quesnel-Hydraulic Rd., Quesnel BC, Canada V2J 6P8; tel 250-747-1512; e-mail cguppy@quesnelbc.com.

The deadline for submissions to be included in the June 2003 issue is **May 1, 2004**.

Membership of the Entomological Society of BC is available to anyone interested in entomology. Annual dues are Can\$20 (regular member) or Can\$10 (student member). Members receive the *Journal*, *Boreus* and *Occasional Papers* (the latter published intermittently).

Inquiries concerning membership and back issues should be sent to the Secretary/Treasurer, Dr. Robb Bennett, BC Ministry of Forests, 7380 Puckle Road, Saanichton, BC, V8M 1W4, Canada; tel 250-652-6593; fax 250-652-4204; e-mail Robb.Bennett@gems6.gov.BC.ca

Cover: *Boreus elegans* (Mecoptera: Boreidae); one of the more conspicuous snow scorpionflies in BC. Larvae and flightless adults live in, and feed on, moss and clubmoss. Adults appear in the fall and are active on snow on warm winter days.

SOCIETY BUSINESS

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA

Fall 2003 Business Meeting
Grand Okanagan Hotel – Chilcotin Room
Kelowna, BC
5 November 2003 – 10:25 – ~10:53 am

SUMMARY OF ACTION ITEMS

Library issues	Bennett
Grant/Madsen Awards follow-up	Anderson
Grant/Madsen Awards contributions	Bennett

1) Call to Order (Gail Anderson)

With a trepidacious tap of the ESBC gavel, Anderson called the 2003 business meeting to order at 10:25 am.

2) Approval of Agenda (Anderson)

Agenda approval moved by Bill Riel, seconded by Terry Shore.

3) Approval of Minutes from Fall 2002 Business Meeting (Anderson)

Fall 2002 Business Meeting Minutes approval moved by Hugh Philip, seconded by Terry Shore.

4) Business Arising from Minutes

4.1) Library Committee establishment (Robb Bennett)

No progress to report. Committee not yet established

4.2) Library cataloguing (Bennett)

Little progress has been made. Bennett has had some discussions with Pacific Forestry Centre librarian Alice Solyma and Vince Nealis regarding obtaining a cost estimate for cataloguing.

5) Reports

5.1) Secretary-Treasurer's Report (Bennett)

Financial statement read into Minutes (see attachment). Finances and membership, subscription, and exchange partner levels are stable. Acceptance of Secretary-Treasurer's Report moved by Kenna MacKenzie, seconded by Riel, carried.

5.2) Journal Editor (Ward Strong)

Report read into minutes (see attached). Strong noted that the following motions were discussed by Executive and that action will be forthcoming on the successful

motions:

* *That manuscript requirements be modified in Volume 100 of Journal of the ESBC to reflect desire for electronic submission. Carried.*

* *That a standardized format for "Scientific Notes" be adopted: two page maximum, no abstract or section headings, "Scientific Notes" title to precede Notes and appear in Table of Contents, Notes to appear on back pages of the JESBC. Carried.*

* *That authors of manuscripts be anonymous to reviewers. Defeated.*

* *That free and unrestricted access to Journal contents be made available on website. Carried.*

Acceptance of Journal Editor's report moved by Marcus Clodius, seconded by Bob Vernon, carried.

5.3) Boreus Editor (Cris Guppy)

No report received (report received after meeting and is appended at the end of these Minutes).

5.4) Website Editor (Bill Riel)

Riel read the following report into Minutes.

"Managing the web site has gone smoothly over the last year. There have been some difficulties relating to conflicting computer security measures implemented at PFC and SFU, but I have found workarounds. I have begun to make more use of Adobe Acrobat, which greatly simplifies the publication of documents that come my way (usually in Word format). As usual, I am open to suggestions and welcome corrections when errors are discovered."

Acceptance of Website Editor's report moved by Vernon, seconded by Tammy McMullan, carried.

5.5) Entomological Society of Canada Regional Director (Terry Shore)

Shore outlined changes to ESC Executive: Charles Vincent is new President, Dan Quiring is 2nd Vice-President. Richard Ring will take over editorship of *The Canadian Entomologist* in January 2004. ESC finances apparently in good shape. Currently there are no big issues on the ESC agenda.

5.6) President (Anderson)

Anderson paraphrased the written version of her report. (Full version of President's Report appended at end of these Minutes).

6) New Business

6.1) Honorary Life Memberships (Bennett, Shore)

ESBC Honorary Life Membership certificates were presented to Imre Otvos (*in absentia*) and Richard Ring during the Joint Annual Meeting banquet presentation ceremonies on 4 November 2003. Shore and Bennett prepared brief biographies of the recipients; Bennett read these during the presentation.

6.2) Student Scholarships and Madsen and Grant Paper Presentation Awards (Anderson)

Awards were made during the JAM banquet ceremonies. Scholarship winners for 2003 were Colleen Alma and Jeanne Robert. Two Grant Awards (sponsor - North Okanagan Naturalists) were presented to Jen Perry and Amanda Roe. The Madsen Award (sponsor - PheroTech Inc.) went to Tanya Latty. Scholarships and paper

presentation judges were thanked for their efforts. Anderson will thank sponsors and ask award recipients to extend thanks also.

6.3) Joint Annual Meeting Issues (Shore)

JAM appears to have been a great success.

6.4) Installation of New Officers (Anderson)

New President-Elect is Dave Raworth; new Directors are Karen Needham and Vince Nealis. Anderson thanked outgoing Past-President Lorraine Maclauchlan and Directors Ian Wilson and Cris Guppy for their services. Anderson then passed the gavel to incoming President Bob Vernon and retired to bask in the glow of a successful conclusion to her Presidency.

7) Other New Business (Bob Vernon)

Vernon thanked Anderson for an excellent year and JAM organizers for a great meeting and then called for any other new business. Phil Jones asked to speak on behalf of the North Okanagan Naturalists.

7.1) James Grant Award (Phil Jones)

North Okanagan Naturalists have expressed interest in increasing the amount of the James Grant Award. Discussion centred on the growing disparity between the Grant and Harold Madsen Awards. Bennett will discuss further with John Borden (re: Madsen Award) and Jones.

8) Adjournment (Vernon)

There being no further new business, Vernon called for a motion of adjournment. Moved by Hugh Philip, seconded by Anderson, carried at 10:53 am. And so, with an assertive, room-rattling rap of the Vernon-wielded gavel, the 2003 ESBC Business Meeting slipped into history as probably the shortest such meeting ever.

Minutes submitted by: Robb Bennett, Secretary, 10 November 2003

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA

2003 Year-End Financial Statement (1/x/2002-31/ix/2003)

FORWARDED

1. Bank balance forwarded on 30 September 2002		7,463.70
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RECEIPTS

1. Dues		3,102.09
Memberships (incl. US exchange)	2,382.99	
Subscriptions (incl. US exchange)	719.10	
2. Publication		6,501.25
Page/reprint charges (incl. US exchange)	6,375.30	
Back issues	125.95	
3. Joint Annual Meeting income		44,410.01
Donations	11,000.00	
Print sales	2,600.00	
Registrations	30,621.44	
Mtn pine beetle symposium registrations	168.57	
Wedgewood raffle tickets	20.00	
4. Miscellaneous income		1,755.15
Term Deposits Interest	1,375.00	
North Okan. Naturalists (Grant Award 2002/03)	300.00	
"Silent Auction" receipts	25.00	
John Dale donation	50.88	
Interest	4.27	
5. Total Receipts		55,768.50

EXPENDITURES

1. Publication		7,512.01
2002 Journal typesetting	307.50	
Journal printing	7,204.51	
2. Joint Annual Meeting expenditures		3,215.57
Blackstock commission	400.00	
'Mourning Cloak' printing	1,518.00	
Catering deposit	1,054.00	
Regist. refunds	125.00	
Mtn pine beetle symp. regist. refunds	118.57	
3. Miscellaneous expenditures		2,741.23
Student awards (J. Perry / M. Salomon (comb. Grant & Madsen))	300.00	
Scholarships (D. Pureswaran / A. Henderson)	1,000.00	
Society registration (2003)	25.00	
Web charges 2003	206.10	
2002 AGM expenses	595.25	
ESBC library (cataloguing)	200.00	
VISA transactions + membership	323.90	
Returned cheque	14.00	
Cheques order	36.98	
Service charges	40.00	
3. Total Expenditures		13,468.81

BALANCE

7,463.70 + 55,768.50 - 13,468.81		49,763.39
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OTHER ASSETS – Island Savings Credit Union

1. Cash		30.38
Balance forward	0.00	
Transfer in from Term 1	20,000.00	
Transfer in Interest from Term 1	1,000.00	
Transfer in Interest from Term 3	375.00	
Transfer in from Term 4	2,566.09	
Transfer in Interest from Term 4	41.06	
Transfer in to new Term 4	-2,607.15	
Transfer out to Term 5 (Debit)	-20,000.00	
Transfer out Interest to Bank (Debit)	-1,375.00	
Patronage deposit	30.24	
Credit interest	0.14	
2. Membership Equity Shares		5.00
3. Term Deposits		28,607.15
1203595-1 @ 5% (closed 16/i/03 - transferred to 'Cash')	0.00	
1203595-3 @ 6.25% (start 17/i/00, matures 17/i/05)	6,000.00	
1203595-4 @ 3.00% (start 30/iv/03, matures 30/iv/04)	2,607.15	
1203595-5 @ 3.80% (start 17/i/03, matures 17/i/08)	20,000.00	
4. Total Other Assets		28,642.53

BANK BALANCE on 30 September 2003 **\$49,763.39**

OTHER ASSETS on 30 September 2003 **\$28,642.53**

TOTAL ASSETS on 30 September 2003 **\$78,405.92**

Statement prepared 20 October 2003 _____
Robb Bennett, ESBC Secretary/Treasurer

Audited – _____
Lorraine Maclauchlan, Past President

Journal Editor's Report

Volume 100, 2003, is well under way with 13 submissions, including 2 notes. Unfortunately, seven of the 13 were late submissions, so there is a lot of last-minute work to do, and the latest submission may not make it before publication. However, we are moving more and more to electronic communication, which speeds the process considerably. I would like to thank the editorial staff, anonymous reviewers, typesetter Dave Holden, and especially the past editor Dave Raworth for all their help and assistance so far in getting this volume together.

There are several changes I would like to discuss regarding the Journal:

1. Electronic submissions. I would like this to be the standard format for the future. Authors may submit a manuscript by e-mail to the editor. This considerably speeds and simplifies the review, typesetting, and galley proof process. This method has been used for eight of the current journal's submissions. I have asked both authors and reviewers for their concerns about this process, and have received no negative criticisms. I recommend that we adjust the submission instructions in the Journal and on the Website to reflect these changes.
2. Notes: Notes have not been treated consistently over the years. I recommend that notes be a maximum of 2 pages, with no Abstract, and without separate sections (e.g. Introduction, Results, etc). They should be identified by the phrase "SCIENTIFIC NOTE" written above the title. All notes should be grouped together after regular scientific papers, and identified in the Table of Contents with the phrase "SCIENTIFIC NOTES" before entries for notes begin.
3. A suggestion has been made that not only should the reviewers be anonymous to the authors, but the authors should be anonymous to the reviewers. This helps guarantee that the reviewer will provide an impartial review. I believe this idea has merit, and would like input from the executive committee.
4. Web publishing of the Journal. One of our main functions as a society is the dissemination of entomological information. Publishing the Journal on the web would further this objective.

The ESC has recently adopted a policy similar to the ESA's, of restricted (password-protected) access to publications on the web for members and paid-up institutions only. Restricted access was adopted out of fears of declines in society membership and institutional subscriptions. The Florida Entomologist has a different model of allowing free and unrestricted access to all papers. This quarterly journal has extensively studied the effects of this access to both society membership and institutional subscriptions since going on-line in 1994. They have found that membership and library subscriptions declined over the period, but to a lesser extent than 5 other journals published by the ESA. Declines were not attributed to on-line access; in fact in constant dollars, library subscriptions increased from 1994 though 2001. After 2001, the Florida Entomologist elected to make institutions pay on a per-article basis to help recover the costs of electronic publication.

Our galley proofs are produced as PDF files; posting them on-line would be very simple and virtually free. I recommend that we post the PDF galleys on-line for free and unrestricted access by all interested parties.

Ward Strong, October 30, 2003

Boreus Editor's Report

Greetings to all attending the 2003 AGM of the Entomological Society of British Columbia. I am unable to attend, but hope that all those attending the JAM have a good time.

The spring/summer 2003 issue of *Boreus* 23(1) was published in June 2003, with 10 notices and notes, and no feature articles. I do not have the time or energy to chase down potential contributors, so there is a definite bias towards my personal interest in Lepidoptera. I would prefer a more taxonomically balanced *Boreus*.

The official deadline for submissions for the next issue is November 1, 2003. Since the AGM is a few days after the deadline, and I have received no submissions to date, I will extend the deadline to November 20. Hopefully there will be contributions by that date. I ask everyone at the meeting to solicit or coerce contributions from others attending the meeting, which is much easier than providing a contribution yourself.

Cris Guppy, 31 October 2003

President's Report

It has been a tremendous honour and a great privilege to serve as President of ESBC this year. This has been a particularly exciting year, culminating in the Joint ESC/ESBC meeting in Kelowna. This joint meeting has taken a tremendous amount of work and coordination and I sincerely thank our organizing committee for their tremendous efforts in making this meeting such a success. Also, I would like to thank our hard working executive, especially the long suffering yet ever knowledgeable Robb Bennett for not only being our able secretary but also our treasurer. It is a pleasure and an honour to work with the executive and I thank you all for making the president's job so enjoyable.

The joint ESC/ESBC meeting includes a great diversity of work in all aspects of entomology. I think the ESBC can be particularly proud of the large range of papers presented by our members. Entomology has been brought to the eyes of the public particularly this year with natural disasters such as the Mountain Pine Beetle outbreaks and the concern over insect vectored diseases such as West Nile Virus. This makes our work and our society particularly important at this time.

I would like to remind everyone of the exciting news that the Master's of Pest Management or MPM program at SFU is back up and running in its new and updated form. It is accepting students now and also offers several generous entrance scholarships, donated by Professor Thelma Finlayson. This is all extremely good news for the many of us that are alumni or affiliated with this exceptional program. I am sure everyone in the field joins me in thanking Professor Finlayson and also Dr. Alton Harestad, for their tireless efforts on behalf of the MPM program. I encourage everyone to remind students and colleagues alike of the program.

Once again, I would like to thank everyone for a wonderful year.

Gail S. Anderson, 30 October 2003

ARTICLES

The Sooty Hairstreak in British Columbia

Norbert G. Kondla, Genelle, BC

The nominal species *Satyrium fuliginosum* (Sooty Hairstreak) is a small drab looking hairstreak butterfly in the family Lycaenidae. It is provincially red-listed and is under review as a species of conservation concern under the federal *Species At Risk Act*. Previous literature has identified only two known areas of occurrence: Anarchist Mountain area (east of Osoyoos) and near Keremeos.

In 2003 I conducted field searches for additional populations. I was able to confirm the presence of the species on Anarchist Mountain, although the occupied site was subsequently impacted by wildfire. Follow-up on a report of species presence in the Richter Pass area by O. Dyer and D. St. John revealed the presence of a robust population there. I also found the species to be common at two sites near White Lake and present in lesser abundance on the northwest slope of Mt. Kobau and southwest of Kilpoola Lake.

The butterfly was found in sagebrush/bluebunch wheatgrass habitat with *Lupinus sericeus* (probable larval food plant) present, at an elevation range from 600m to 1100m. Extant populations were found in areas that, at the landscape scale, had reduced relief in comparison to surrounding steeper areas (Figure 1). Adults commonly used *Achillea millefolium* and *Eriogonum heracleoides* as nectar sources (Figure 2). Extreme known flight dates are 20 May and 4 July. The last two weeks of June appears to be the primary flight period and is correlated with senescence of *Lupinus*.

The taxonomy of the nominal species is under review by Paul Opler. Use of the species name in this note is for communication purposes only and does not reflect my preferred taxonomic interpretation. British Columbia butterflies have been variably placed as subspecies *fuliginosum* (Layberry et al. 1998), subspecies *semiluna* (Guppy and Shepard 2001) and as “probably undescribed” (Pyle 2002). My view is that our butterflies do indeed represent an undescribed entity that is a different species from *fuliginosum* and which has no clear name at this time. Figure 5 illustrates the pertinent entities. Besides the substantial phenotypic differences in both males and females; BC males are also distinguished by having only a weakly defined androconial patch on the dorsal forewing. This contrasts with the strongly defined androconial patch on males of subspecies *semiluna* and the complete absence of an androconial patch on the males of nominate *fuliginosum* (Figures 3 and 4).



Figure 1. Habitat of *S. fuliginosum* near White Lake.



Figure 2. Adult *S. fuliginosum* taking nectar from *Eriogonum heracleoides*.

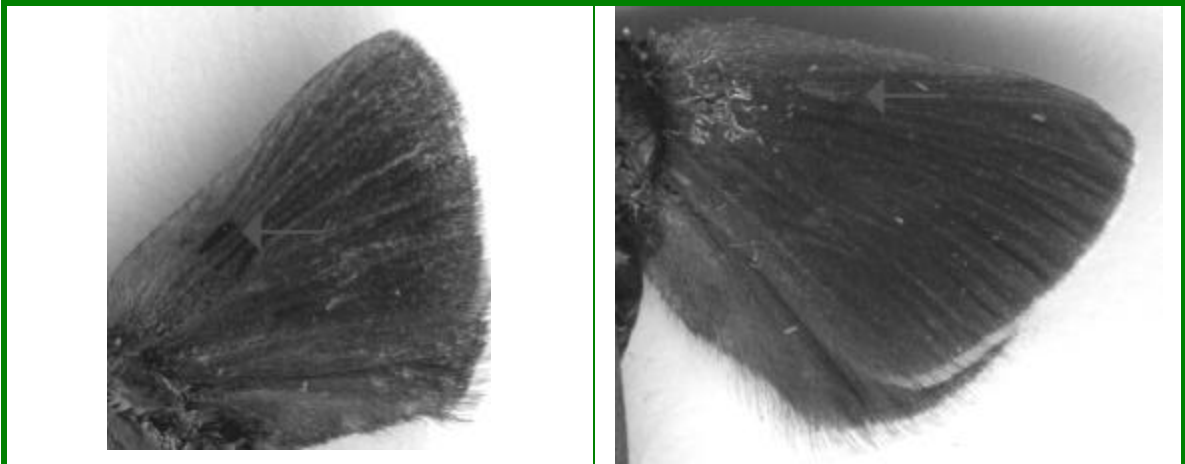


Figure 3. Male androconial patch, Waterton Lake, AB **Figure 4.** Male androconial patch, White Lake, BC

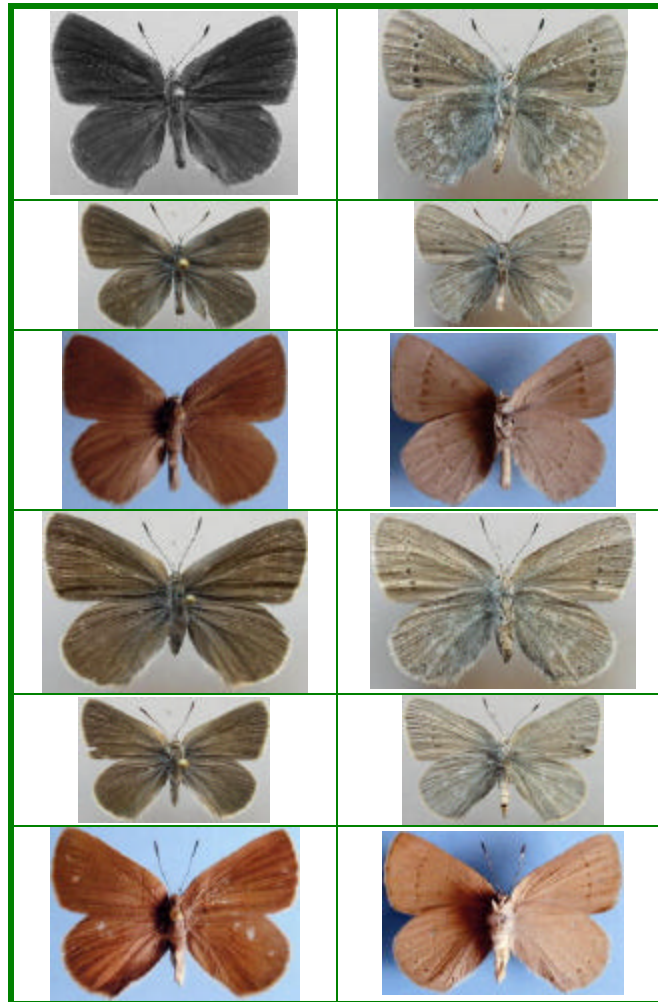


Figure 5. Dorsal and ventral views of the Alberta and British Columbia entities in comparison to each other and to nominate *fuliginosum*. Illustrations are life size when displayed or printed at 100 %. Top three rows show British Columbia males, Alberta males and nominate California males. Bottom three rows show females in the same order.

Literature Cited

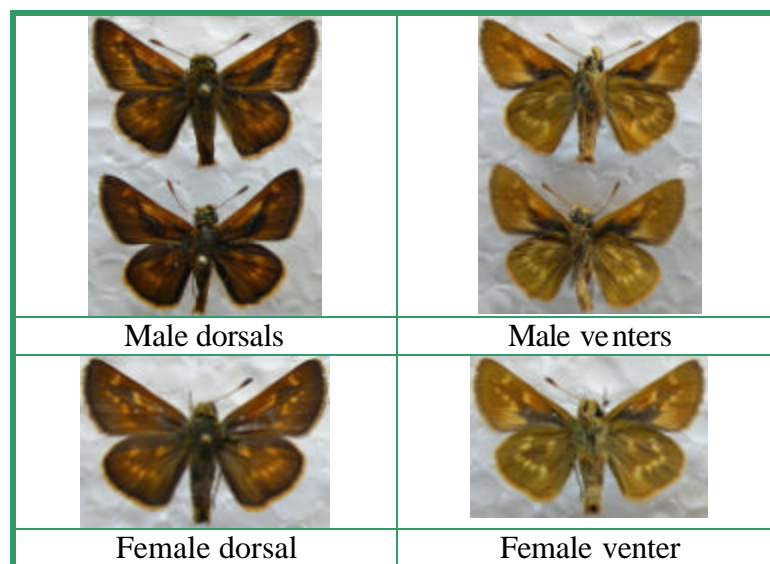
- Guppy, C. S. & J. H. Shepard. 2001. Butterflies of British Columbia. University of British Columbia Press, Vancouver. 414 pp.
- Layberry, R. A., P. W. Hall & J. D. Lafontaine. 1998. The Butterflies of Canada. University of Toronto Press, Toronto. 354pp.
- Pyle, R.M. 2002. The Butterflies of Cascadia. Seattle Audubon Society, Washington. 420pp.

The Sonora Skipper in British Columbia

Norbert G. Kondla, Genelle, BC

The Sonora Skipper is a butterfly of the family HesperIIDae. Adults have a wingspan in the order of 25 to 30 mm. The dorsal wings are a combination of rusty orange and brown with blackish wing borders. Ventral forewings have a basal black patch, tawny and pale areas in the median area and an olivaceous border. Ventral hindwings are olivaceous with a distinct semicircular band of pale spots (Figure 1).

Figure 1. Photographs of adult British Columbia *Polites sonora*.
Scale approximately life-size.



British Columbia populations have been variably assigned to subspecies *sonora* or subspecies *siris* (eg. Guppy and Shepard 2001, Layberry et al. 1998). Preliminary taxonomic review strongly suggests that BC populations are neither subspecies. Comparative illustrations of *sonora* and *siris* from Washington state are presented in Figure 2.

This species is red-listed in British Columbia and is presently under review as a species of conservation concern pursuant to the federal Species At Risk Act. In Canada, the species is entirely confined to a very small area of BC. Credible published records prior to 2003 consisted of historical collections in Manning Park and Crater Mountain, both in the Cascade Mountains. In 2003 I searched for additional populations and found one small site in Wolfe Creek valley of the Thompson Plateau south of Princeton and a larger occupied habitat patch along Placer Creek, east of Manning Park, and its tributary – Watson Creek. D. Threatful reported an additional historical record along the Ashnola River southwest of Crater Mountain. This brings the total of identifiable occurrences of the species in BC to five. Known locations range from 765m to 1700m elevation. Higher elevation areas probably support more populations than lower elevations due to the availability of more openings in the forest matrix of the region. It is also

possible that additional populations exist in logged areas that have not yet regenerated to closed canopy forests.

Figure 2. Left image, uppersides of Washington state ssp *sonora* from the Cascade Mtns. (top 4) and ssp *siris* from the Puget trough (bottom 3). Right image, undersides of same butterflies. Images courtesy of J. Pelham.



Habitat in Manning Park is undocumented. It has been reported on dry grassy slopes near Keremeos but the nearest population to Keremeos is Crater Mtn. where it has been found in mesic to dry grassy forest openings. The Wolfe Creek site is an artificial agricultural opening (Figure 3). At Mason Creek the butterflies occupied a logged riparian area (Figure 4). Near Placer Creek, occupied sites were found in a valley bottom cutblock. Available information supports the idea that moister habitats are preferred by the species.

Field observations by J. Pelham in Washington state and my own observations reveal that even when the butterflies are present in a habitat patch; they are highly localized and do not occupy the whole habitat patch. All visually suitable habitat patches are not occupied. This very patchy distribution, along with their cryptic behaviour and small size presents a challenge for future field inventory to determine the full status of the species in BC. The butterflies are easily overlooked, even by experienced observers.



Figure 3. *P. sonora* habitat in Wolfe Creek valley.



Figure 4. *P. sonora* habitat at Mason Creek valley.



Figure 5. Canadian distribution of *Polites sonora* (blue crosses).

Literature Cited

- Guppy, C. S. & J. H. Shepard. 2001. Butterflies of British Columbia. University of British Columbia Press, Vancouver. 414 pp.
- Layberry, R. A., P. W. Hall & J. D. Lafontaine. 1998. The Butterflies of Canada. University of Toronto Press, Toronto. 354 pp.

NOTES & NOTICES

Giant Robotic Insects: A new temporary exhibit at the Royal BC Museum

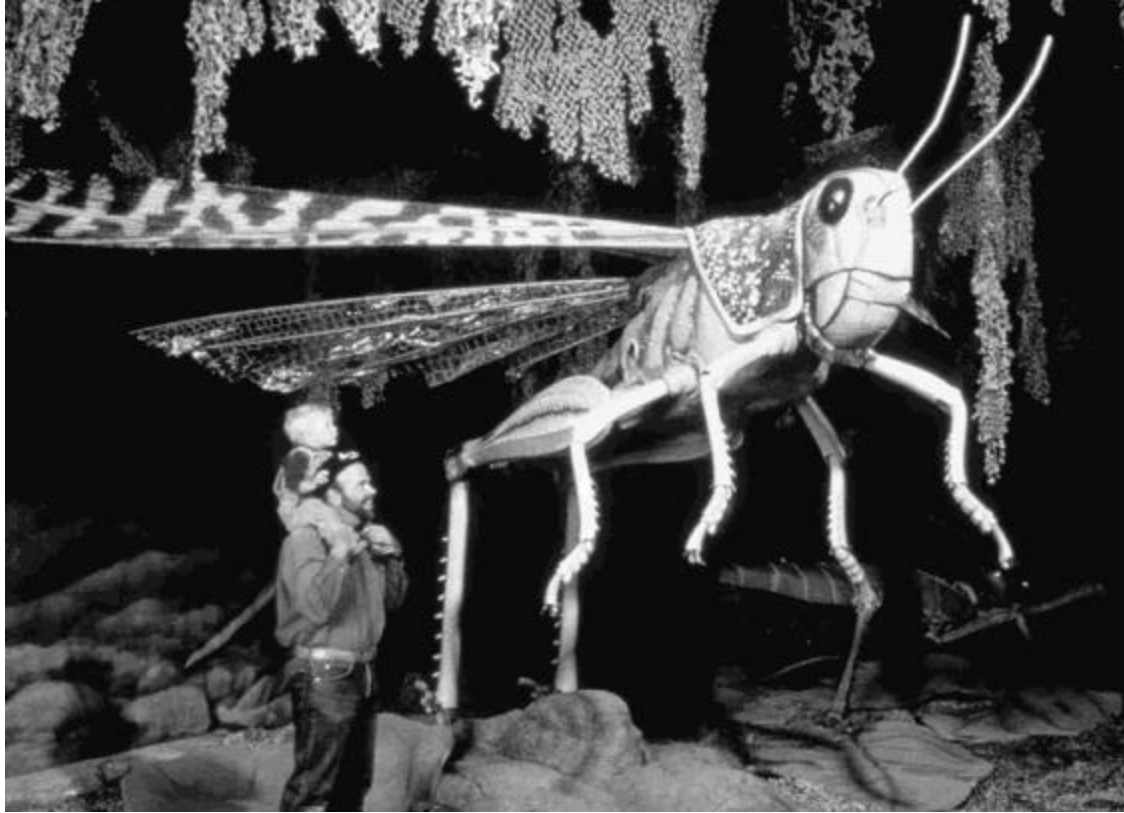
Rob Cannings, Royal BC Museum, Victoria, BC

A new travelling exhibit on insects opened at the Royal British Columbia Museum on 14 November. It will be on display until mid-March 2004. *Giant Robotic Insects* describes the headliners of the show – huge, moving insect models controlled by computer and animated by compressed air. Five species are modelled – a locust, stick insect, swallowtail caterpillar, mantid and scarab beetle. The latter example is actually two male specimens of the Atlas Beetle locked in a tussle over mates. Also included are three magnified insect heads that show visitors how a bee sucks nectar, how a dragonfly chews, and how a pesky mosquito draws its blood meal.

The travelling part of the exhibit, produced by a Japanese company, has been seen around North America for almost a decade. The most interesting part of the exhibit, from my point of view, is my attempt to give it some BC context. Using material from the RBCM collection, I tried to answer some of the more common questions I get from year to year at the museum – How do yellow jacket wasps construct their nests? What's BC's biggest insect? Are any insects in BC threatened? What is that huge beetle, anyway? Also highlighted are insect relatives such as spiders and scorpions, and the oribatid mite bonanza discovered in the canopies of Vancouver Island old-growth forests. Finally, a bit about insect collections and their use is included – in particular the production of two recent RBCM books on BC butterflies and dragonflies. Despite the small space and the extremely short time available for producing the exhibit, it was a great opportunity to get some of the collection into the public eye.

Along with showcasing specimens from the Museum's collection, the exhibit also covers a few insect-related issues facing British Columbians, such as the Mountain Pine Beetle devastation in our forests and the risk of West Nile Virus transmission from mosquitoes.

In partnership with the museum, the National Geographic IMAX Theatre presents the new Oscar short-listed film *Bugs!* Filmed in Borneo and narrated by the incomparable Dame Judi Dench, this film offers a bug's-eye view of more than 40 tropical insects many times life size on the giant IMAX screen.



Desert Locust - Giant Robotic Insects



Praying Mantis - Giant Robotic Insects

Rare Spider Attacks Common Butterfly

Norbert Kondla, Genelle, BC

On 31 August 2003, while collecting butterflies just west of Rossland, BC; I noticed an individual of a common butterfly *Ochlodes sylvanoides* (Lepidoptera, Hesperidae) fluttering on a flower head but not going anywhere. Closer examination revealed that the hapless butterfly was firmly in the clutches of a spider (Figure 1). I consulted spider expert Robin Leech and, based on several photographs, he pronounced the spider as being *Misumenops sierrensis* Schick, 1965 in the family Thomisidae. He further advised that there were only three previous records of this spider in Canada, to which Robb Bennett (pers. comm.) added two further records. All records of the spider are from southern BC. Figure 2 illustrates the habitat where this observation was made.



Figure 1. *Misumenops sierrensis* feeding on *Ochlodes sylvanoides*.



Figure 2. Habitat of *Misumenops sierrensis*. Ordinary "Kootenay Mix" forest near Rossland, BC.

Claudia Copley -- new Entomology Collections Manager at the RBCM

Rob Cannings, Curator of Entomology, Royal BC Museum, Victoria, BC

Claudia Copley of Victoria is the new collections manager in Entomology at the Royal BC Museum. She begins her duties on 1 March 2004. Claudia replaces Dave Blades, who left the half-time position in January, 2003.

Claudia has a B.Sc. major in Biology (1994) and a B.Ed. (secondary curriculum) (2001) from the University of Victoria. She has lectured and instructed laboratories in entomology, vertebrate biology, ecology and general biology at the same university. Her entomological experience includes arthropod collection, preparation and identification for numerous surveys and biodiversity projects, including the Ministry of Forests ecological project at Carnation Creek, the Mount Arrowsmith Biosphere Project, and the extensive forest canopy surveys headed by Neville Winchester at the University of Victoria. She has also worked in entomology at the Pacific Forestry Centre (Canadian Forest Service) and the Summerland Research Station (Agriculture and Agri-food Canada).

Claudia has extensive public programming and nature interpretation experience, organizing and presenting programs and exhibits during the past decade at the Goldstream Nature Centre in Victoria and at other parks and schools. She has worked as a project coordinator and development officer with Habitat Acquisition Trust, overseeing projects involving environmental education, stewardship, conservation covenants and land acquisitions. She is the editor of *The Victoria Naturalist*, the newsletter/journal of the Victoria Natural History Society.

Claudia's entomological and public programming background, her broad knowledge of natural history and her enthusiasm and energy make her an excellent addition to the Museum staff.

Peace River Butterfly Inventory 2003

Guppy, C.S., S.J. Kinsey, and L.L. Law. 2003. Reconnaissance Inventory of the Butterflies of the South Peace. Submitted to Louisiana-Pacific Canada Ltd., Dawson Creek, BC. 104 pp.

SUMMARY

The butterflies of the south Peace River area, which is the portion of the Dawson Creek Forest District south of the Peace River, were inventoried with emphasis on the blue-listed species. This is consistent with the objective of the Dawson Creek Land and Resource Management Plan (Province of BC 1999) to "*sustain and manage wildlife habitat for red, blue and yellow-listed species*". The distribution, abundance and habitats of the blue-listed butterflies are poorly known prior to this study. There was no information regarding the effects of industrial development, including forest development, on the habitats and populations of the blue-listed butterflies.

Louisiana-Pacific Canada Ltd. initiated this project to determine the effects of aspen harvesting

activities on the conservation status of the blue-listed butterflies. The project was designed to provide basic information on the effects of forest harvesting on the rare butterfly component of biodiversity. This project provides the *only* information specifically focused on the effects of forest management in British Columbia on the habitats and populations of butterflies of conservation concern.

The objectives of this project were to:

1. Complete a reconnaissance inventory of the butterflies and their habitats, with emphasis on the aspen forest associated species, in the south Peace River district.
2. Re-assess the conservation status of the rare (blue-listed) butterflies in the area.
3. Assess the effects of forest harvesting on the populations and habitats of the blue-listed butterflies.

Eighty-one butterfly species occur in the South Peace River, of which fifteen are blue-listed. Two new species were recorded for the South Peace River, and one “species” with two “subspecies” was determined to actually be two distinct species. Four of the blue-listed butterflies clearly benefit from land clearing due to industrial development; ten are strongly associated with the montane shrub/grassland (MS) broad ecosystem unit which tends to be avoided by industry, and one is restricted to subalpine and alpine habitats with some impact by the energy industry. Harvesting and road building provides open, grassy habitats that are used by the four species that benefit from forest development.

The Red-disked Alpine should be considered for removal from the red/blue list, because it is quite common and widespread in northern BC. The conservation status of five of the blue-listed butterflies is recommended to remain the unchanged, because they have a restricted range but are well distributed within that range: the Arctic Skipper (subspecies *mandan*), Great Spangled Fritillary (subspecies *pseudocarpenteri*), Common Ringlet (subspecies *benjamini*), Common Woodnymph (subspecies *ino*), and Uhler’s Arctic. Mead’s Sulphur should also be left on the blue-list because it is known from few sites, but inhabits relatively stable alpine/subalpine habitats. Eight species (none of which are adversely affected by the forest industry) should be considered for moving from the blue list to the red list, because they are clearly very restricted in distribution and dependent on a single habitat type (MS): the Common Branded Skipper (subspecies *assiniboia*), Baird’s Swallowtail (subspecies *pikai*), Coral Hairstreak, Striped Hairstreak, Arctic Blue (subspecies *lacustris*), Aphrodite Fritillary (subspecies *manitoba*), Tawny Crescent, and Alberta Arctic. One additional species, the Northern Checkerspot, should have the Peace River populations considered for red-listing once they have been named as a new subspecies.

Forest harvesting activities are either beneficial (4 species) or have no effect (11 species) on the populations and habitats of the blue-listed butterflies.