



BOREUS

NEWSLETTER OF THE ENTOMOLOGICAL SOCIETY

OF BRITISH COLUMBIA

Volume 19, Number 1 June 1999

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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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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 have 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 should be sent to the Editor, Dr. Dave Raworth, Agriculture and Agri-Food Canada, Pacific Agri-Food Research Centre, PO Box 1000, Agassiz, BC, V0M 1A0, Canada: tel 604-796-2221; fax 604-796-0359; e-mail raworth@em.agr.ca

The deadline for submissions to be included in the 1999 issue is **September 1, 1999**.

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, Philip A. Jones, P.O. Box 1943, Vernon, BC V1T 8Z7 Canada; tel 250-549-1596; e-mail philip_jones@BC.sympatico.ca .

The deadline for submissions to be included in the December 1999 issue is October 29, 1999.

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@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.

ANNOUNCEMENTS

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA 2ND ANNUAL GRADUATE STUDENT SCHOLARSHIPS

The Entomological Society of British Columbia announces the second annual Graduate Student Scholarship competition. Two \$500.00 Scholarships (one M.Sc., one Ph.D.) will be awarded each year at the Annual General Meeting. Scholarships are to be used to defray research paper or poster presentation related costs (including travel) incurred by graduate students for participation in conferences other than the ESBC AGM.

For consideration, applicants must be:

N Graduate students and ESBC members in good standing

and must submit:

N name and locality of conference to be attended,

N title and abstract of research to be presented, and

N current CV

Abstract should be double spaced, 12 font, and a **maximum** of 200-250 words (based on processor electronic word count). Applications will be judged on the basis of scientific importance, quality of the application, and qualifications of the applicant. Applications from M.Sc. and Ph.D. students will be judged in separate categories; a singleton application in either category will be judged with applications in the other.

Deadline for receipt of applications for 1999 Scholarships is 31 August 1999. This year's Scholarships will be awarded at the ESBC AGM at the University of British Columbia, Vancouver on Friday, October 22nd 1999. Send applications to:

Robb Bennett

Secretary/Treasure, ESBC

BC Ministry of Forests

7380 Puckle Road

Saanichton, BC V8M 1W4

or e-mail to: Robb.Bennett@gov.bc.ca

Changes planned for ESBC Web site

The ESBC Web site is located at <http://www.harbour.com/commorgs/ESBC>. Currently, it lists our major activities, the directors, and announces programs such as the grad student scholarships. However, I believe the Web site could serve a more interactive and participatory role, serving to draw BC entomologists of all stripes together. This would include professionals, amateurs, educators and students.

Amateurs in particular tend to be overlooked in the local entomological scene. BC is peppered with dedicated amateurs who have amassed comprehensive collections, distribution and phenology information, and surprising expertise in their groups of interest. They tend to be involved with the more charismatic species, especially butterflies and beetles. However, they can serve as eyes and hands for professionals interested in the same groups of insects, and contact with professionals can help stimulate the amateurs' interest, and develop their expertise. Amateurs can also be a valuable resource for teachers and students, particularly since they are often retired people with sufficient time to lend a helping hand. The Web site may be able to help develop such mutually beneficial relationships.

Four main modules are envisioned in the new, upgraded Web site:

1. Entomologist's registry: A self-registered list of entomologists, their interests and level of involvement, and contact information. This would help facilitate communication between entomologists with similar interests, and aide in contact between professionals, teachers, and amateurs. This may be modeled on the registry of forest entomologists at the Pacific Forestry Center.

2. Education Connection: Web links, resources, potential guest speakers, and contact information for school teachers and others interested in including entomology in their curriculum. Many teachers are interested in insects, but don't know how to get started. Links to programs like Scientists and Innovators in the Schools could be included.

3. Ask the Experts: A forum for people to ask entomology-related questions of BC entomologists. This module has not received rave reviews from the ESBC directors. Risks include being inundated with questions; using the Experts as a first resource (users should look in an encyclopedia or visit the library first); and questions being too general. A big fear was students with tardy term papers asking questions like "Tell me everything about pheromones". These problems could be addressed with a moderated Ask the Experts forum; every question would go to a moderator who decides on the appropriateness of the questions, and then forwards the question to a participating Expert.

4. Checklist of BC Insects: Mainly targeted at amateurs, this module could provide information on species, locations, and phenology. It should perhaps be restricted to a popular group, such as butterflies. This checklist could help stimulate interest and participation in BC entomology, also providing a resource for researchers interested in species distributions etc. I would like the feedback of ESBC members on the utility of these ideas, and whether they are a worthwhile addition to the Web site. Also, I would need help creating the modules, especially in the area of CGI scripts. Any offers of assistance would be greatly appreciated.

Please call me at (250) 549-5696, or e-mail me at ward.strong@gov.bc.ca.

SOCIETY BUSINESS

BORUES

Behind schedule and behind the eight-ball. Your new editor, Phil Jones, apologizes for this issue arriving behind schedule, or did you notice? One lesson learned is that it is not a great idea when having a first run at a Newsletter, to try and learn a new word processing system, Word 97, after years of using Word Perfect. ! Your new Editor continues the tradition that *Boreus* be used as a mechanism to increase Members awareness of activities of both ESBC and other Members. As a new feature, Members Profiles is initiated in this issue of *Boreus* with the publication of member's profiles: Hugh Philip, Ward Strong, Ken White, and Phil Jones.

ESBC MEMBER LIST

At the Executive Meeting, April 23, 1999, it was agreed a list of members would be published in this issue of *Boreus*. With the mailing of the 1999 Journal and year 2000 membership dues invoices a notice will be circulated requesting permission to publish Members' addresses as well in *Boreus*. Names and addresses will not be published on the ESBC website.

The rationale for this action is to have a better mechanism for members to interact and help promote entomology in BC.

Entomological Society of British Columbia

MEMBERSHIP LIST

Active Members as of Spring 1999

Dr D C Allen Syracuse NY USA			
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Dr R I Alfaro Victoria BC	Dr N H Anderson Corvallis OR USA	Dr Gail Anderson Burnaby BC	Hugh Barclay Victoria BC
Mr Jack Arrand Victoria BC	Emile Begin & Tanya Leyton Invermere BC	Dr P Belton Burnaby BC	Dr E N Belton Burnaby BC
Patti Bishop Victoria BC	Riella Zilahi-Balogh Blacksburg VA USA	Victoria Bug Zoo Victoria BC	Caroline Bedard Abbotsford BC
Robb Bennett Saanichton BC	Kathy Bleiker Prince George BC	Conrad Berube Nanaimo BC	Ken & Stephanie Bloem Tallahassee FL USA
Dave Blades Victoria BC	Dr J H Borden Burnaby BC	Suzie Blatt Kingston ON	Cindy Broberg Burnaby BC
Mike Bomford Vancouver BC	Anthea Bryan Penticton BC	Dr P D Bragg Vancouver BC	Mr S Cannings Victoria BC
Jennifer Burleigh Burnaby BC	Amanda Chau Burnaby BC	Christine Bush Victoria BC	J Churcher Sault Ste Marie ON
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Joe Cortese Tatla Lake BC	Andrea Davenport Abbotsford BC	Joan Cossentine Summerland BC	Naomi Delury Burnaby BC
Bob Costello Abbotsford BC	Bob Duncan Victoria BC	Troy Danyk Lethbridge AB	Marnie Duthie-Holt Prince George BC
Leigh Dillon Port Coquitlam BC	Maya Evenden Lexington KY USA	Ms Sheila Douglas Queen Charlotte City BC	Laura Fagan Victoria BC
Mr Timothy Ebata Victoria BC	Sheila Fitzpatrick Agassiz BC	Linda Edwards Cawston BC	Erin Frew Revelstoke BC
Professor Thelma Finlayson Burnaby BC	Dr H Gerber Surrey BC	Dr Linda Gilkeson Victoria BC	Dr Dave Gillespie Agassiz BC
Dr Gerhard Gries Burnaby BC	Jeff Green Victoria BC	Dr Glenn Haas Boulder City NY USA	Cris Guppy Quesnel BC
Michelle Hall Saanichton BC	Dr Rebecca Hallett Saskatoon SK	K G A Hamilton Ottawa ON	James D Hansen Toppenish WA USA
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Rob Higgins Williams Lake BC	Mr R S Hodgkinson Prince George BC	Dr E H Holsten Anchorage AK USA	Laura R E Hooper Sooke BC
Alida Janmaat Burnaby BC	Dezene Huber Burnaby BC	Jeff Jarrett Vancouver BC	Tracy Huepplesheuser Burnaby BC
Dr B Staffan Lindgren Prince George BC	Dr Lee Humble Victoria BC	Shiyou Li Corner Brook NF	Dr Murray Isman Vancouver BC

Garrell E Long Pullman WA USA	Dr P A Jones Vernon BC	Tom Lowery Vineland ON	Troy Kimoto Delta BC
Dr M Mackauer Burnaby BC	Jan Klimaszewski Sainte-Foy PQ	Kenna Mackenzie Kentville NS	Alan Knight Wapato WA USA
Dr J A Matteoni Surrey BC	Ashley Lamb Victoria BC	Rob McGregor Agassiz BC	Dr H R MacCarthy Vancouver BC
Tamila McMullan Burnaby BC	Lorraine MacLauchlan Kamloops BC	Dan Miller Athens GA USA	Dr Jasbir Mann Surrey BC
K Needham Vancouver BC	Mr Daniel F Mayer Yakima WA USA	Marian Partridge Delta BC	Rory L McIntosh Burnaby BC
Dr I S Otvos Victoria BC	Dr J A Mclean Vancouver BC	Therese Poland E Lansing MI USA	Mac Menair Burnaby BC
Renee Prasad Burnaby BC	Ed Mondor Burnaby BC	Deepa Pureswaran Burnaby BC	Dean Morewood Victoria BC
Leo Rankin Williams Lake BC	Dr J H Myers Vancouver BC	Dr R A Ring Victoria BC	Ken Naumann Vancouver BC
Michael Roboz North Vancouver BC	George Opit Burnaby BC	Dr B Roitberg Burnaby BC	Diana L Parker Brentwood Bay BC
Dr G G E Scudder Vancouver BC	Hugh Philip Kelowna BC	Mark Sidney Burnaby BC	Lisa Poirier Vancouver BC
Michael Smirle Summerland BC	Dr W B Preston Winnipeg MB	Stephanie Sopow Fredericton NB	Dr David A Raworth Agassiz BC
Ward Strong Vernon BC	Dr W E Ricker Nanaimo BC	Dr H M A Thistlewood Summerland BC	Dr L Safranyik Victoria BC
Elizabeth Tomlin Cambellville ON	Greg St Hilaire Langley BC	Dr B Vernon Agassiz BC	Dr D W Scott La Grande OR USA
Dr J Webster Burnaby BC	Bob Setter Prince George BC	Mr A T Wilkinson Vancouver BC	Dr T L Shore Victoria BC
Ian Wilson Vernon BC	Dr J E R Stainer Fort Nelson BC	Ken White Smithers BC	Art J Stock Nelson BC
Dr P R Wilkinson Lethbridge AB	Mr Don Summers Surrey BC	Neville Winchester Victoria BC	Dr Jon Sweeney Fredericton NB
Prof M Winston Burnaby BC	Dave Trotter Surrey BC	Peter Zuk Vancouver BC	Sherah Vanlaerhoven Fayetteville AR USA
Dr P W Wood South Slokan BC			

REPORTS

G.G.E. SCUDDER RETIREMENT SYMPOSIUM AND DINNER

On May 8th, 1999, former and current graduate students, colleagues, and friends gathered at The University of British Columbia to honor the extraordinary career of Dr. Geoff Scudder. The day began with a symposium organized by Dr. Murray Isman and chaired by Dr. Isman in the morning and Dr. John Spence in the afternoon.

Dr. Don McPhail, long time colleague and friend of Dr. Scudder's, opened the morning session with a biography and tribute, including some little known tidbits such as Scudder's unique strategy for making the UBC Experimental Ponds a reality in a time of university-wide fiscal restraint. Sixteen superb talks followed, ranging in topic from giant water striders rediscovered in the forests of Vietnam to tiny tapeworms newly discovered in the guts of nurse sharks. Insect biodiversity was detailed from mountain tops to forests to grasslands. One of the surprises of the day came in the final talk, when a new genus of ichneumonid wasp from New Guinea was named in Dr. Scudder's honor. Regardless of the diversity of fascinating topics covered during the symposium, the unifying theme was quite clearly the significant and far-reaching effect that Dr. Scudder has had on the people around him. From turning Dr. John Spence (and many others!) on to insects in the first place, to convincing Dr. Locke Rowe of the importance of insect genitalia (!), Dr. Scudder's influence on the careers and personal lives of the symposium participants was apparent. The symposium was followed by a cocktail party and an evening of fine dining filled with more great Scudder stories, including one about a witch doctor in Papua New Guinea (ask him about it sometime!). The event was a great success, and I would like to thank everyone who took the time out of their busy schedules to come and join us in a celebration of Dr. Scudder as researcher, teacher, administrator, supervisor, mentor, and friend.

(Contributed by K. Needham)

FEATURES

Book Review:

Opler, P. A. & A. B. Wright. 1999. A field guide to the western butterflies. Houghton Mifflin Co., Boston & New York. pp. xxiv, 540.

This new and completely re-written edition of the "A field guide to the western butterflies" will be welcomed by naturalists, butterfly watchers, and the beginning student of western North American butterflies. It concentrates on species level discussions and does not go into the almost

infinite number of subspecies names that were in the original "A field guide to the western butterflies" by Tilden & Smith (1986).

Opler was given pre-publication access to many papers, including those of this reviewer, so the species and generic nomenclature are as up-to-date as possible with two major exceptions: 1) Opler ignored the opinions of two major workers, Johnson for the Holarctic and Pratt for western North American hairstreaks. Therefore Opler has only one genus, *Callophrys*, for the three genera *Callophrys*, *Mitoura*, and *Incisalia*. Johnson and Pratt recognize the three genera and in addition each has described a new genus for the mistletoe feeding members of the genus *Mitoura*. 2) Opler's treatment of the *Mitoura rosneri/nelsoni/siva* complex in which three species: *nelsoni*, *mui*, and *gryneus* are recognized is still another opinion of this group with no good reason to follow this arrangement. Every book in the last ten years has presented a different arrangement of

this species complex. Probably only DNA or electrophoresis will give a definitive answer. There is one error of fact, the Juniper Hairstreak, *Mitoura gryneus*=*M. siva*, does not occur on Vancouver Island, as shown on the species map.

The distribution maps are excellent and accurate for the western United States. Opler relied on the various state co-ordinators to have the best and most up-to-date distribution for the western United States. However in following the maps in "The butterflies of Canada", errors concerning

Distribution of BC and AB species were repeated in this Field Guide. It is unfathomable that

Opler did not take information from the maps in "Alberta butterflies" and ask this reviewer about BC distribution to make up the BC and AB portions of the maps. For the general and BC reader, the most significant error is for

the Monarch. There are no records for the Monarch north of Kamloops in BC. The Field Guide map for the Monarch shows it occurring in Northeast BC. That repeats the errors in the "The butterflies of Canada". Dots on the Monarch map in "The Butterflies of Canada" for northeast BC are based on specimens of the genus *Vanessa* [painted ladies], not the Monarch.

There is one serious error in the book regarding the spelling of the endings of species latin names. Opler ignored the "International Code of Nomenclature" rule that species names that are adjectives must have the same gender endings as the generic name they are currently assigned to, not the sex of the original genus. This continues the cavalier attitude of United State butterfly writers, who for the supposed sake of nomenclatural stability, refuse to follow international rules and also recognize relatively fewer genera than some North American authorities and all experts in Europe and Asia.

There are also major changes to common name usage. Instead of "Western Meadow Fritillary" for *Boloria epithore*, a name in use for one hundred years, Opler uses "Pacific Fritillary". This reviewer fails to see how this type of change to common name usage will lead to stabilization in use of common names.

The most serious flaw in the book is the coloured drawing of the adults in supposedly natural pose. Most butterflies, except when basking, rest with their wings folded up over the body, a fact noted in most books on insects. However, this book shows most adults with the wings laid flat on the resting surface. Naturalists and others will be frustrated when they can not find such poses in their daily observations.

Another problem with the drawings is that they are inadequate to discriminate species in difficult genera such as *Speyeria* and *Euphydryas* or even easier genera like *Boloria*. It would have been far better if the drawings had kept to the format in "A field guide to eastern butterflies"

(Opler, 1992).

Despite the reservations detailed above the general reader will welcome this new "A field guide to the western butterflies" because it concentrates on species discussions and ignores most subspecific variation. (Contributed by J. Shepard)

Progress report: " Butterflies of British Columbia".

C. S. Guppy and J. H. Shepard have completed the rough draft of their book and it is being sent to reviewers this summer. It is expected that the final manuscript will be ready in late fall 1999 and that it will be published in 2000 by the Royal BC Museum. The book will include discussion

of 181 species known to occur in the Province and at least 11 more species likely to occur in the Province. This summer Guppy, Shepard, Kondla, and Threatful are trying to confirm four more species for the Province and collect critical information on certain east/west species pairs. The book is more than just a field guide to BC butterflies and will have several major changes in nomenclature which will differ from "The butterflies of Canada" and the Peterson Field Guide to "Western Butterflies". The authors are preparing papers for scientific journals to present the reasons for the systematic changes. Some of the changes are because of original research

and others are because of research overlooked by other authors. (Contributed by J. Shepard)

The Great Firefly Hunt

Maybe I go to bed too early, or perhaps it's because I don't live by a marshy lake shore, but in all my years as a naturalist and entomologist in British Columbia I've never seen a live firefly (Coleoptera: Lampyridae). Sure, I've collected plenty of *Ellychnia*, those common lampyrid beetles that don't produce light, and I've seen many kinds lit up at night in various parts of the world, but never in British Columbia. So I was intrigued when a few reports began to surface a few years ago. The only collection record of a light-producing firefly species in the province is one documented in Hatch's "Beetles of the Pacific Northwest": *Photuris pennsylvanicus* DeG. from Fort Steele in

the East Kootenays. It's surprising that these insects, whose flashing lights make them so obvious, are almost nonexistent in museum collections.

Bob McVickar, a naturalist from Sicamous, really spurred my interest when he began reporting sightings in the Shuswap area in 1997. Bob asked naturalists around the province to record their observations of fireflies so that we could better document the occurrence of these interesting beetles. Reports came in from places as widespread as Vanderhoof, Nelson, and Alexis Creek, and comments from residents of these areas indicate that fireflies have been seen for years.

Bob and his friends in the Shuswap area managed to collect specimens at Herman Lake near Eagle Bay and at Skmana Lake near Adams River. Greg Ross sent some in from Fort Steele. Others were sent from the Cariboo to Bob Duncan at the Pacific Forestry Centre in Victoria. So far, all records are from the Interior.

Fireflies can be difficult to identify, mainly because many cryptic species exist. When speciation is the mainly the result of behavioural modifications (in this case the pattern of light signals between the sexes), different species can look awfully similar. We are still working on the identifications

of the specimens gathered in the past two years, but apparently three species are involved.

Bob and I plan to submit our findings to the ESBC Journal once the work is complete. In the meantime, keep your eyes peeled when you're out at night in a wet meadow or along the marshy margin of a lake. Watch for those flashes of light and try to collect a few specimens for our project. They can be sent to me care of the museum address below.

Rob Cannings
Curator of Entomology
Royal B.C. Museum
P.O. Box 9815, Stn. Prov. Govt.
Victoria, B.C. V8W 9W2

MEMBER PROFILES

Hugh Philip:

Hugh G. Philip, PAg 465 Knowles Road, Kelowna, BC V1W 1H2 Home tel. (250) 746-8032; business tel. (250) 861-7230 e-mail: hphilip@silk.net

As a foundation for Hugh's professional career in entomology he obtained a B.Sc. Agriculture (1968) and M.Sc. Entomology (1970) from the University of Alberta, Edmonton. After graduation he was employed for one year as a Research Assistant at the University. In 1972 he was hired by Alberta Agriculture as an entomologist responsible for providing province-wide insect diagnostics, applied research and extension services.

In 1973 he was promoted to Head of the Entomology Section, Plant Industry Laboratory, supervising one permanent technician and up to seven temporary staff. An additional two entomologists and a second technician were added to the staff in 1980 when the Laboratory was moved to the Alberta Environmental Centre in Vegreville, AB. He was promoted to Head of the Crop Protection Group in 1982 and made responsible for management of the budget, personnel, and the research and service programs of the Entomology, Plant Pathology and Controlled Environment Sections (7 professionals and 3 technicians).

Since 1989 Hugh has been employed by the B.C. Ministry of Agriculture and Food as an entomologist responsible for applied research and technology transfer on the management of insect pests of tree fruits primarily, but also of cereals and oilseeds, grapes, special crops and livestock, forages, and beef cattle. Applied research projects include development and assessment of insect sampling and monitoring methods, and the evaluation and demonstration of biological, behavioural and chemical control methods. Hugh participates in field

days and educational seminars to teach growers how to identify and monitor harmful and beneficial insects and mites, and how to select an appropriate control strategy if required.

Professional Affiliations:

- Professional Agrologist (B.C. Institute of Agrologists) (presently a Director on Provincial Council)
- Member of the Entomological Societies of British Columbia, Canada and of America

Professional Activities:

- Past Chair, Expert Committee on Integrated Pest Management
- Editor, Pest Management News
- Past Editor, Pest Management Research Report
- Chair, ad hoc ESC Committee on Commemorative Insect
- Chair, Western Committee on Crop Pests
- Past Director of ESBC

Publications:

Hugh has authored or co-authored 4 published scientific papers, over 60 technical research reports on insecticides efficacy and residue studies on crops and livestock, and numerous extension publications on the identification, biology and control of agricultural and horticultural insect pests. He assists in the updating of the Tree Fruit Production, Grape Management, and Field Crop Pest Control guides.

Examples of extension publications:

- Philip, H.G. 1977. Insect Pests of Alberta. The University of Alberta Press, Edmonton, Alberta.
- Philip, H.G., and Mengersen, E. 1989. Insect Pests of the Prairie Provinces. The University of Alberta Press, Edmonton, Alberta.
- Philip, H.G., and Edwards, L. 1991. Field Guide to Harmful and Beneficial Insects and Mites of Tree Fruits. B.C. Ministry of Agriculture, Fisheries and Food, Victoria, B.C.
- Philip, H.G. et al. 1995. Field Guide to Disorders of Fruit Trees. Okanagan Valley Tree Fruit Authority, Summerland, B.C.

Ward Strong:

Ward Strong, Ph.D. Cone & Seed Pest Biologist, Kalamalka Seed Orchard, 3401 Reservoir Rd., Vernon, BC V1B 2C7 Business tel. (250) 549-5696 e-mail:ward.strong@gov.bc.ca

Ward received his B.Sc. from UBC in 1983 in plant pathology. His first job out of university was with Gary Judd at Monagro Consultants, an agricultural pest monitoring company based in Cloverdale. To quote Ward: "I liked it so much that the following year I bought the company...", since Gary was finishing up his Ph.D. and moving on. Ward started a master's degree with John Borden and Dave Raworth, working on control of thrips in greenhouse cucumbers using the phytoseiid mite *Amblyseius cucumeris*. He completed his M.Sc. in 1989, and in 1990 he sold Monagro Consultants to the East Chilliwack Agricultural Co-op, where it is still providing pest consulting services today.

In 1991, he and his family moved to Corvallis, Oregon where they survived 4 years of studenthood without going bankrupt or insane: Ward's wife as a nursing student, his children in preschool or elementary, and Ward as a Ph.D. at Oregon State University. He worked under Brian Croft on population dynamics and dispersal in a phytoseiid-spider mite biocontrol system on hops, and was awarded a Ph.D. in 1995. He then landed a job with Robb Bennett in the BC Ministry of Forests, where he remains today. He is responsible for operations, research, and extension of pest management for conifer seed orchards in the BC Interior. He notes that the little microcosm of seed orchards, a cross between agriculture and forestry, has proved to be an interesting system to work in, with a diverse pest complex and no end of research opportunities. Ward particularly enjoys interacting with

entomologists at universities and forestry research centers, and looks forward to fruitful research and extension collaborations in the future.

Ken White:

Ken White, Regional Entomologist, Prince Rupert Forest Region, Bag 5000, Smithers, BC

V0J 2N0 Business tel.: (250) 847-7479 fax: (250) 847-7217 e-mail: Ken.White@gems8.gov.bc.ca

Ken grew up in the lower mainland of BC where his interest in insects started at age 10. After collecting bugs in jars for many years he decided he needed a more formal education in entomology. He obtained a B.Sc. in Biology at the University of Victoria (1988) and a Masters in Pest Management at Simon Fraser University (1992). His first position following graduation was at the Pacific Forestry Centre where he undertook research on predators of the white pine weevil, *Pissodes strobi*. His next positions were with the BC Ministry of Forests, first in Victoria and then in the Kamloops District Office. He continued to move north and as he notes, to smaller towns.

Ken is currently with the Ministry of Forests in Smithers as the Regional Entomologist for the Prince Rupert Forest Region. He supplies training and advice about forest insect pests to the Forest Service and forest companies staff, forestry contractors and the general public. As the need arises on projects on various forest insect pests, he determines their impact, proposes legislative changes and develops operational trials. One of his current projects is testing traps for bark beetles and orchard pests.

His entomological interests include taxonomy of Diptera. Outside of his professional life he enjoys gardening, antique cars and pop culture.

Phil Jones:

Philip A. Jones, Ph.D., PAg. P.O. Box 1943, Vernon, BC V1T 8Z7

Tel.: (250) 549-1596 e-mail: philip_jones@telus.net

Phil spent his formative years in Prince George and Smithers, BC. He obtained a B.Sc. Agriculture (1949) from the University of BC. Prior to graduation he worked two summers as a student assistant at the Trinity Valley Field Station for the Forest Insect Survey. He says that the interesting fact about that employment is that he was interviewed for the position by two icons of forest entomology: George Hopping and Hector Richmond. Following graduation Phil went to the Forest Insect Survey Lab in Vernon, BC until 1952 when he entered graduate school at the University of Wisconsin. He obtained an M.Sc. in Entomology (1956). From 1958-60 he was employed by Agriculture Canada in the Ottawa office of the Forest Insect Survey. He returned to Wisconsin in 1960 to a full time position doing research on biological control of forest insects. Phil completed his PhD studies in 1963. In December 1964 he accepted a position in the Entomology-Zoology Department at South Dakota State University (SDSU). At South Dakota he was the State Survey Entomologist as well as conducting research on control of agricultural insects. At SDSU he was responsible for editing and contributing to a weekly Insect Survey Newsletter. In 1974 Phil accepted a position as Technical Director for FMC Canada, Niagara Chemicals, and moved to Burlington, ON. When Niagara Chemical was sold in 1977 he started with Environment Canada in Ottawa in the Commercial Chemicals Branch after a short period of unemployment. In Ottawa he assessed the environmental impact from commercial chemicals and pesticides. In 1992 Phil accepted a pre-retirement position in the North Vancouver office of Environment Canada. Phil retired to Vernon, BC in December 1993.

When Phil returned to Canada in 1977 he became an active participant in the Ontario Institute of Agrologists and with his move to BC then became active in the BC Institute of Agrologists. He is currently past president of the Okanagan Branch of BCIA. He is also enjoying membership in the North Okanagan Naturalists Club in which he leads a small group of members interested in entomology.

During his professional career Phil was author or co-author of 15 publications in forest entomology and 40 in agricultural entomology. Although these publications were primarily Fact Sheets, Brochures and Extension Publications there were also peer reviewed papers. While with Environment Canada he authored three technical review reports on the environmental impact of chlorophenols and organotins.

Phil retired two months short of his 70th birthday. Since then he says little has changed. He is still as busy as ever although he admits he is slowing up.