BOREUS

NEWSLETTER OF THE ENTOMOLOGICAL SOCIETY

OF BRITISH COLUMBIA

Volume 21, Number 2, January 2002

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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 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 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@gov.bc.ca.

  The deadline for submissions to be included in the 2002 issue is **September 1, 2002**.

- ***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 emphasizing 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 5E5; tel 250-747-1512; e-mail cguppy@quesnelbc.com.

  The deadline for submissions to be included in the June 2002 issue is **May 15, 2002.**

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.

Boreus elegans, the ESBC Insect

This is a slightly modified version of an article in the inaugural issue of ***Boreus*** *(April 1981), written by the editor at the time, Rob Cannings.*

At the ESBC Director's meeting on 27 November 1980, those present chose the genus *Boreus* (Mecoptera: Boreidae) to represent the Society on a new logo. I was given the task of recommending a particular species of Boreus for this honour. My only instructions were: "Make sure you choose a good species…we don't want the Society's insect to end up as a forgotten synonym in a few years!" *Boreus elegans* Carpenter was the final choice.

The Boreidae (from the Greek "Boreas" -- the North Wind, the North) or snow scorpionflies are small mecopterans that resemble minute grasshoppers. The Holarctic genus *Boreus*, the only one of the family in British Columbia, was chosen to represent the province for several reasons. British Columbia is a province of

mountains and snow, the characteristic habitat of these insects. They are striking and distinctive, with interesting and unusual behaviour. Five of the seven known Canadian species live in the province.

Boreus elegans is the most distinctive of the British Columbia species. It is considerably larger and redder in colour than the other four species; as its name suggests, it is the most handsome of the genus. In Canada it occurs only in British Columbia. Although it is not distributed as widely in the province as some of the other species (*B. californicus, B. pilosus*), it inhabits the Coast Range and lives among the mountains by the sea, the two features most often associated with our province [and now linked with the image of *Boreus* on the ESBC seal].

Boreus larvae are C-shaped grubs with a well-developed head capsule and three pairs of thoracic legs. They live at the base of the moss and clubmoss plants on which they apparently feed, although they probably also are saprophagous and carnivorous. Adults appear in the fall and winter, often hopping and walking on the surface of the snow.

The adults are long-legged. The male has vestigial, bristle-like wings with which he grasps the female during mating. In the female, the wings are further reduced to small scales. The female has a long and conspicuous ovipositor.

The Society's logo shows a female *Boreus elegans* in silhouette over the letters ESBC

PRESIDENT'S CORNER

Lorraine Maclauchlan
BC Ministry of Forests, Kamloops

Musings of a Forest Entomologist

It is a striking fall day outside and alas I find myself at my desk trying to catch up on paperwork (a common refrain I am sure). One of my tasks however totally captivates my attention and gets me thinking and subsequently scratching out my thoughts. The ESBC is preparing a special centennial volume of its journal and I was asked to review some submissions for a segment entitled, "History of forest investigations in British Columbia". I found the papers both fascinating and entertaining, as I am sure you will when you read them. These papers made me realize how far we have progressed in some areas and how comically similar some of our current situations are to those in the past. While discussing the establishment of the Vernon forest entomology laboratory, one author describes how R. Hopping prepared to launch what the Minister of Lands at the time called the province's "war on the pine beetle". This of course was referring to the outbreak of *Dendroctonus brevicomis* that was killing large areas of Ponderosa pine, but still, almost echoed our new Premiere's declaration of "waging war on the mountain pine beetle". The article goes on to say that in 1920 a provincial allotment of $10,000 was directed at control operations, compared to a 2001 provincial budget of $10 million for bark beetle control. However, another similarity that made me chuckle was the coincident timing of "bark beetle outbreaks and budget constraints". R. Hopping recommended control efforts for an infestation of mountain pine beetle in Kootenay National Park in the early 1930's, covering about 72 square miles, but the proposal fell victim to Depression-era budget constraints. And here we are, yet again, facing the challenge of managing another outbreak of *Dendroctonus ponderosae*, in Parks, on Crown land and with an arsenal of new tools yet many of the same obstacles.

What was clearly evident in these recollections was the exuberance and dedication of those early entomologists. What is even more gratifying is the realization that entomologists today are just as dedicated and productive. There are so many individuals becoming interested in the field of entomology both professionally and, as amateurs, that I don't think entomologists will become extinct any time soon. What is changing is the ways in which entomologists pursue their careers, often creating their own business opportunities rather than depending

upon traditional institutions such as government or academic institutes. This is admirable and good, but certain areas could suffer - most notably taxonomy, reference collections, long-term studies and the list goes on. So to end this rambling note, I will just say that we must all promote and mentor entomology students. One way we can accomplish this goal is introduce them to the ESBC and get them to attend our annual meeting.

Notice of ESBC policy on Journal reprints

The Society is currently breaking even on the first 100 reprints ordered by authors, but is heavily subsidizing extra 100's of reprints. Printing extra 100's also involves considerable waste because print runs are done in groups of eight pages (a signature); if a paper ends on the first page of a signature, then seven additional pages must be printed and discarded. The issue was discussed at the Executive Meeting 25 April 2001 and it was decided that ***the Society will publish a maximum of 100 reprints for authors*** – i.e. extra 100's will not be printed. This will solve both the cost and waste problems associated with extra 100's of reprints. The Executive trusts that this approach will not greatly inconvenience most authors.

PROFILES

There are several ways to bring ESBC members together. The most personal is for members to attend the Annual General Meeting. Another is to visit the ESBC website. A third way is to read Boreus and contribute to it. I hope that by publishing personal profiles of both amateur and professional entomologists from the Pacific Northwest, we can get to know each other better. (Editor)

Tracy Hueppelsheuser

I grew up on a mixed farm in central Alberta; about 20 km north west of Red Deer. My family farms there still. At the University of Alberta, I studied agriculture. Though I knew I was headed in the right direction, my studies were fairly general. That is, until I took my first entomology course. On the first day, Dr. Craig described in detail the similarities and differences between French fries and caterpillars. Being an out-doorsy type, insects had always been a part of my life, but mostly as a nuisance. However, I had no idea about the great diversity of insects, and was fascinated in each class by the intriguing new world that was unfolding in front of me. I then enrolled in my first integrated pest management course, lead by Dr. John Spence. Wow, the IPM concept blew me away, and I knew my direction. I hold Dr. Spence almost entirely responsible for the studies and employment I have engaged in ever since!!

I worked at various places in Alberta, including Alberta Agriculture Crop Research Center in Lacombe, Hoechst Canada as a product development technician and sales rep for the Edmonton area, and for Alberta Agriculture and the Vegetable Growers Association studying European corn borer in Taber.

Honestly, the reason I moved to BC was to ski at Whistler. Teaching skiing was always a good blend with my summer work as a crop consultant for E. S. Cropconsult Ltd. Depending on whom I was talking with at the time would determine whether I referred to my summer or my winter job as my "real job". I have worked on various berry crop research projects with Dr. Deborah Henderson, and managed the monitoring and consulting program for berry growers. The most extensive study I worked on through E. S. Cropconsult was development of *Trichogramma*, an egg parasitoid, for management of caterpillars in raspberries. I worked on this before I started my Masters, used it as a Masters of Pest Management thesis at Simon Fraser University, and worked on the project afterwards. Now, the protocol is used by a commercial applicator and some raspberry growers are buying *Trichogramma* to use for caterpillar control instead of synthetic insecticides.

In March 2001 I started working as the minor use pesticide coordinator for the BC Ministry of Agriculture, Food and Fisheries in Abbotsford. This has been an interesting and challenging position. Primarily, my focus is to help grower groups pursue registration of new pest control products that are less toxic and fit well into IPM programs. Because my position is not commodity specific, I have the opportunity to deal with many crops, including food crops, ornamentals, livestock, and even forestry.

Over the years I have presented studies at various events, including the Entomological Society of BC meetings. I remember my first ESBC meeting well: I have never been as terrified to give a talk as I was that day. It turned out all right, though, with no major mishaps. As a student in BC, I was grateful that ESBC gave me the opportunity to gain experience presenting at a local venue to local scientists.

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Jennifer Perry

My name is Jennifer Perry and I'm a new M.Sc. student at Simon Fraser University. I graduated in the spring of 2001 from the University of Alberta environmental biology program. I did my undergraduate honors project with Dr. John Addicott, studying indirect mutualism between yuccas and *Formica* ants. Some of the other entomology related work I did as an undergrad includes a project on the prodoxid moths of Alberta, papers on green peach aphid control and forest tent caterpillar dispersal, and a directed reading course in bacteria-insect associations.

I'm embarrassed to admit this to a group of entomologists, but I was a serious entomophobe until my second year of university. That's when I took my first entomology course, and I was instantly hooked. Nothing surprised my family and friends more than my decision to study bugs in graduate school!

While I don't have a specific system chosen for my master's degree yet, I tentatively plan to study cannibalism, trophic eggs and male-killing bacteria in ladybird beetles. Ladybirds are often cannibalistic as first instar larvae; they'll eat any unhatched siblings. Also, many ladybirds harbor male-killing bacteria, which cause male embryos not to hatch. These unhatched males are then consumed by their hatched sisters. Besides the unhatched males, it seems (although it's unclear) that many ladybird eggs wouldn't hatch anyway. It's possible that ladybird females lay 'trophic eggs' destined never to hatch to provide food for their other cannibalistic offspring. I'm working out the details of my project at this stage so if anyone has an interest in this area or just wants to chat about ladybugs, please don't hesitate to contact me! (jperry@sfu.ca) I'm also trying to get a colony going, so if ladybirds invade any of your homes en masse this winter, please contact me!

(Editor's Note: Jennifer was the recipient of the Student Paper Competition Award at the 2001 AGM)

Jennifer Perry
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John A. Rumph

I became interested in entomology when we studied arthropods in my general zoology class at Sonoma State University, Rohnert Park, CA. Due to cooperative arrangements between the state university system and the University of California system, I enrolled in General Entomology at the University of California, Berkeley where I was instructed by Howell Daly and his graduate students. The class further spiked my interest in entomology and I decided to pursue my interest.

I was accepted in the Master's program at Washington State University in the Department of Entomology. I studied the relationship between chamaemyiid flies and their host *Diuraphis noxia*, the Russian wheat aphid.

During the course of my studies, I developed a new process for preparing soft-bodied insects and larvae for scanning electron microscopy and published my first paper on the process. I completed my Master's program and have gone on to work on a Ph.D. in entomology. I am working with Dr. Daniel F. Mayer on the biology of *Peristenus howardi*, a braconid wasp parasitoid of *Lygus* spp. We are currently looking at alfalfa and vegetable seed cropping situations and what conditions contribute to the parasitoid's success so that we can make recommendations for the promotion of the parasitoid to growers in an Integrated Pest Management program. I expect to receive my degree in the 2002-2003 academic year.

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Jon Howard Shepard

Jon was born Feb. 18, 1941 near Weiser, ID. After WW II he moved to Kennewick, WA, for grades 1-9. By grade 8 he had begun collecting butterflies along the irrigation ditches and shores of the Columbia River before it was dammed and diked. The destruction of the riparian habitat and its Lepidoptera fauna, left a permanent impression. Since then he has fought for conservation of Lepidoptera. In his formative years, he had received encouragement from the Kennewick City Librarian who had obtained for him, through Interlibrary Loan, every book published on North American butterflies. Jon was also encouraged by his paternal great uncle, a graduate of Washington State University (WSU) in the 1890's, who had photographed, prior to flooding, all petroglyphs along the mid Columbia from Wenatchee, WA, to The Dalles, OR. Jon attended high school in Yakima, WA. He was enrolled in the Honors Society and received the National Math Associations award as the best math student in his school in 11th and 12th grades. In 11th grade he also received 1st prize in Biology and the Grand Prize at the Eastern Washington Science Fair.

Jon obtained a B.Sc. Honors in Biology at Oregon State University followed by a M.Sc. in Entomology from WSU, where he had studied under the well-known Diptera systematist and Medical Entomology specialist, Dr. Maurice T. James. For a brief period he had studied at Stanford with Paul Ehrlich before moving to Nelson, B.C, in 1966. Jon taught for two years at Notre Dame University, Nelson, before returning to graduate school at University of California, Berkeley. There he studied under Dr. J. A. Powell, a Tortricidae specialist. He returned to Nelson in 1972, having completed all requirements but a thesis for a PhD. Jon again taught at Notre Dame University and its successor, David Thompson University Centre until just before it closed. From 1982 to 1989 he taught as a sabbatical replacement for various colleagues at Brandon University, Manitoba; Athabasca University and Grant McKewan College, Edmonton; and Northwest Community College in Terrace, BC. When a job became available at Selkirk College Jon returned to Nelson where his wife had remained working at Selkirk College Library, cataloging books.

From 1966, when Jon first moved to Nelson, he began gathering data for the book on butterflies of BC. That included field studies to all parts of the province and periods of study at the major natural history museums in North America. In 1996 Jon resigned his position at Selkirk College to work on butterfly conservation and write his half of "The Butterflies of British Columbia". He is gratified to know that the effort has paid off in public awareness of the butterflies of the Province, and that the book has been well received, by both professional lepidopterists and the general public, with sales near 1000 copies.

Jon's professional associations include present/past membership in the Entomological Societies of Kansas, Oregon, Washington, British Columbia, Canada, and the Pacific Coast; the Okanagan Parks Association; the Xerces Society [Lepidoptera Conservation]; Sigma Xi Science Honorary Society; the Holarctic Lepidopterists', the Mid- Continent Lepidopterists', and the Lepidopterists Societies; and the Lepidopterists' Research Association. He has served on the executive council of the Lepidopterists' Society and for 28 years has been the Pacific North West coordinator and contributor to the Society's annual "Season's Summary", recording extensions of known distribution of Lepidoptera species in North America. Besides co-authoring the BC butterfly

book, Jon has written or co-authored 70 publications on Lepidoptera systematics and conservation including six chapters in three other books.

Jon has also been a strong supporter of the local community in Nelson. He and his wife, Sigrid, were two of the six original members of the Nelson Food Co-op, now the Kootenay Food Co-op, which has sales of $5 million per year. He served on the Board of Directors for the first 15 years and recently as a replacement member. He was a member of the board of David Thompson University Centre Support Society for ten years from the time that the government closed DTUC until it was reopened as a private art school. He has also been active in local politics as the campaign manager and chair of the Community Advisory Committee for two local Regional District representatives. During that tenure he oversaw the building of fire halls for the only areas not yet covered by volunteer fire departments. He also continued his support of local libraries by attempting to pass a referendum that would have included the regional district area around Nelson in the area served by the Nelson Municipal Library. He much regrets the fact that the referendum failed by 15 votes, twice!

Jon H. Shepard
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Sigrid Marie Shepard

Sigrid was born April 12, 1941 at Bellingham, WA and named after her paternal grandmother Sigrid, of Norwegian descent. Sigrid attended K-12 in Bellingham. After attending Columbia Basin College, Pasco, WA, she returned to Bellingham and Western Washington University where she obtained a B.Ed. with a major in history and a minor in art. She met her future spouse, Jon, while attending Columbia Basin College. They married in 1963 just after obtaining their Bachelor's degrees. Sigrid began a lifetimes' work as a library cataloger in 1964 but illustrated systematic entomology Ph.D. theses and began helping Jon in the field and as an illustrator. The latest illustrations were the genitalia drawings for "The Butterflies of BC."

Sigrid has also been active in university staff unions. While at Notre Dame University of Nelson she negotiated the first union contract in Canada, in the early 1970's, that allowed spousal benefits for same sex couples and pay equity for traditional female jobs that were underpaid.

Sigrid has also published a successful cookbook, written many magazine and newspaper articles on cooking, and given cooking classes for thirty years.

Sigrid M. Shepard
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ARTICLES

Sources of Common Names for Insects

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We give names to things to facilitate communication. When we say “Siamese cat”, we are referring to a particular breed of domestic feline and we probably all have a similar picture in our minds. This agreement on meaning is what makes communication possible. But more than that, names are the key to accessing the

accumulated knowledge about the named entity. If we want to know more about Siamese cats, we can look them up under that name in an encyclopedia or give the name to a search engine on the Web. If we were to make up our own name for something and then to try to use that to access such information, we would be almost assured of failure. Names only work because we all agree on what they label.

In everyday living, names work even if they are a bit imprecise. The range of objects covered by the word "chair" is truly astounding, yet we can still usefully use the term. By contrast, in science one needs to be very precise about what is meant by a given "name". Because of this need for precision and uniformity, biologists have developed a detailed set of rules governing the naming of organisms. These "scientific names" are universal; all scientists in all languages use the same names.

The same is not true for vernacular or common names. Even amongst countries speaking the same language, names may be different. For example, our "Common Loon" is a "Great Northern Diver" in Great Britain. We know that they are the same because they both refer to the species of bird whose scientific name is *Gavia immer*. That is also how we know that the German "Eistaucher" is the same as our "Common Loon". One way to be clear about what is meant by a vernacular name is to accompany it by the corresponding scientific name and this is often done. A second way is to publish a list associating the vernacular name with the scientific name; thereafter, we can just use the vernacular name.

The birding community is probably farthest along the path to universally accepted common names. Entomologists are still in the very early stages of agreeing upon these. Most insects have not been assigned common names and even accepted names may refer to several unrelated species or groups of species. The sheer number of species of insects and the relative obscurity of many of these makes the task nearly impossible; consequently, most entomologists prefer to use the scientific name directly.

However, there is increasing pressure to give common names to insects. Editors of popular-level field guides insist on having such names. Government agencies often insist on such names in reports. The authors of publications aimed at the nonscientific community want vernacular names–Mountain Pine Beetle, Gypsy Moth etc. The entomological community has begun to respond to this demand.

Some societies dealing with particular groups of insects have developed approved common names such as the American Birding Association has done for North American birds. For example, the Dragonfly Society of the Americas has produced a list of approved English-language names for all North American dragonflies and damselflies. You will find that most of the recently published field guides for dragonflies conform to these names. Consequently, when you talk about a Blue- eyed Darner, most dragonfly aficionados will know that you are referring to an *Aeshna multicolor*. You can find the approved list on the DSA website at <www.ups.edu/biology/museum/NAdragons.html>.

For butterflies the situation is not so simple; there is no generally agreed upon list of common names. *The common names of North American butterflies* (J.Y. Miller ed, Smithsonian Press, 1992), compiles common names which have been used for butterflies in North America and gives a recommended choice for each. *Butterflies of British Columbia* (J. Shepard and C.S. Guppy, UBC Press, 2000) and *Butterflies of Canada* (R.A. Layberry, P.W. Hall and J.D. Lafontaine, NRC Press, 1998) give their choice of common names for the species of butterflies included. Yet another selection of common names has been put out by the North American Butterfly Association on their website at <www.naba.org/pubs/enames1.html>.

The Canadian Entomological Society has a list of English and French language names for insects with the associated scientific names on their website at <www.biology.ualberta.ca/esc.hp/menu.html>. A similar list is available from the American Entomological Society published in book form (*Common names of insects and related organisms*, Ent. Soc. of America, 1992), with additions available over the web at <www.entsoc.org/pubs/publish/commonname.html>. Both of these lists are dominated by "pest species" which are the ones most likely to have a high enough public profile to have been given common names.

Not all insects have vernacular names; in fact most don't. If you need to use such a name, consult the sources given above. If the species you want is found in one of the sources, please use the suggested name. If the species

is not included, consider carefully if you really need to use an English-language name. After all, if you didn't use its scientific name, what would you call a rhinoceros?

(Editor's Note: This note about common names for insects has also been submitted to the Vancouver Natural History Society for publication in their journal Discovery.)

WILLIAM E. RICKER (1908 – 2001)

Rob Cannings
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Born in Waterdown, Ontario in 1908, William Edwin Ricker died on 8 September 2001, in Nanaimo, B.C. The godfather of modern fisheries science and a world authority on stoneflies, he was given many honours during his long life.

Bill Ricker was a member of the Entomological Society of British Columbia for about 70 years, one of the longest memberships on record. He joined in the early 1930s while he was a graduate student and a scientific assistant with the Fisheries Research Board of Canada studying sockeye salmon at Cultus Lake, B.C. Although he is best known in the biological community as a pioneering fisheries biologist, his contributions to entomology are significant, and include 37 papers, monographs and book chapters (see below) dealing with aquatic groups, primarily the Plecoptera (stoneflies). Although he took up entomology as a hobby, a sideline to his fisheries work, his work on the Plecoptera is central to our knowledge of the evolution, biogeography and taxonomy of this important group. He described about 90 species of stoneflies and has named 46 genera and subgenera. Several publications, especially the *Stoneflies of southwestern British Columbia* (1943), *Systematic studies in Plecoptera* (1952), *Plecoptera* (in Ward and Whipple's *Freshwater Biology*, 1959) and *The classification, evolution and dispersal of the winter stonefly genus Allocapnia* (1971) are milestones in the study of the stoneflies. I like the story of how Ricker, who loved languages and had a sense of humour, named a stonefly *Zapada chila*. He called the genus *Zapada*, which is from the Russian for "west", because the original species were restricted to western North America; *chila* comes from Spanish for "red pepper". Bill felt that this particular stonefly was a "red-hot discovery" because it was the first *Zapada* species discovered in the East.

Ricker was educated in public schools and the Collegiate Institute in North Bay, Ontario; his BA, MA and PhD came from the University of Toronto. Although from 1939 to 1950 he was a professor at Indiana University and Director of the Indiana Lake and Stream Survey, most of his scientific career was with the Fisheries Research Board of Canada, where he was a Scientific Assistant, Editor (1950-1962), Acting Chairman (Ottawa, 1963-1964) and Chief Scientist (1964-1973). Since 1950 he lived in Nanaimo, where he retired in 1973. He was active long after retirement, publishing frequently and using an office at the Nanaimo Biological Station until just before his death.

Bill Ricker's work includes 737 manuscripts, 305 of which were published. He is best known for his three books on fisheries research, one of which is titled *Computation and Interpretation of Biological Statistics of Fish Populations* and is translated into French and Russian. He developed the celebrated Ricker Curve, a formula that describes the relationship between fish stock abundance and the recruitment of offspring. The sweeping driveway at the Nanaimo Biological Station is fondly called "The Ricker Curve".

Ricker was a keen student of Russian and maintained close ties with fisheries biologists there. He translated over 100 Russian research papers and published the *Russian-English Dictionary for Students of Fisheries and Aquatic Biology*. His Russian work is a special achievement, for it helped open up the large body of Russian aquatic research to the West, and vice versa. Ricker is revered in Russian fisheries circles.

He served on many international committees dealing with resource use, including United Nations FAO Advisory Panels and international commissions on fisheries and marine mammals.

Dozens of awards and honours came Bill Ricker's way. He was made an honorary life member of many societies, including the Entomological Society of British Columbia, the Canadian Society of Zoologists, the American Fisheries Society, the American Society of Limnology and Oceanography and the International Association for Theoretical and applied Limnology. He was elected a Fellow of the Royal Society of Canada in 1956. He received honorary degrees from three universities and won many prizes for his contributions, including the Gold Medal of the Professional Institute of the Public Service of Canada (1966), the Confederation of Canada Silver Medal (1967), the Award of Excellence of the American Fisheries Society, the Flavell Medal of the Royal Society of Canada (1970), the Fry Medal of the Canadian Society of Zoologists (1983) and the Eminent Ecologists Award of the Ecological Society of America (1990). He was made an Officer of the Order of Canada in 1986.

But Bill was not only a scientist. He belonged to an organization devoted to Sherlock Holmes and published a story about Holmes' nemesis James Moriarty. The story was set in the Klondike gold rush and revealed some of the details of Moriarty's mysterious life. Bill loved music and played bass viol with the Nanaimo Symphony Orchestra. He was passionate about railways and crossed Canada by train many times. He worked with the Boy Scouts of Canada for many years.

I was fortunate to know Bill Ricker personally, although we met only a few times. He was a wonderful man. I remember the pleasure I had in delivering to him, in 1989, the framed certificate of his Honorary Life Membership in the Society. But mostly I remember the conversations I had with him about dragonflies. My own work on these insects benefited from his explorations of aquatic insect life in B.C., and I was intrigued by his descriptions of research in those early days. He took me around Nanaimo to his favourite haunts and delighted in showing me the antics of the brilliant red *Sympetrum illotum* (Cardinal Meadowhawk) flashing around ponds on the city's golf course.

Many of Bill Ricker's contributions, although made in fisheries science, have wide application in other disciplines. This is especially true of his groundbreaking work in statistics, bionomics and life history theory. His energy, wide-ranging interests and curiosity about the natural world made him a person to be emulated by all biologists.

W.E. Ricker: list of entomological publications

Ricker, W.E. 1935. Description of three new Canadian perlids. The Canadian Entomologist 67: 197-201.

Ricker, W.E. 1935. New Canadian perlids (Part 2). The Canadian Entomologist 67: 256-264.

Ricker, W.E. 1938. Notes on specimens of American Plecoptera in European collections. Transactions of the Royal Canadian Institute 22(1): 129-156.

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Ricker, W.E. 1939. A preliminary list of stoneflies (Plecoptera) from the vicinity of Cultus Lake, British Columbia. Proceedings of the Entomological Society of British Columbia 35: 19-23.

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COMMENTS

Response to "Some new genus names for BC butterflies"

Jon H. Shepard

Kondla (2001), in *Boreus* 21(1), noted that the new book, *Butterflies of British Columbia* (Guppy and Shepard 2001), did not discuss or reference two papers on the taxonomy of the Lycaenidae (Gossamer Wings). We were aware of the papers but did not accept their taxonomic changes.

The two papers in question were published in *Neue Entomologische Nachrichten*, a privately published and unreviewed monographic series. The first paper (Johnson 1993) proposed that the genus *Incisalia* be split into two genera, but no book published since 1993 on western North American butterflies (Emmel 1998, Layberry *et al*. 1998, Opler 1999), including ours, accepts this.

The results of the second paper (Balint and Johnson 1997) also have not been accepted by the publications listed above nor by several important new Russian and European books (e.g. Turzov 2000). The generic status of the blues in the Tribe Polyommatini is not resolved, and the differences among European and North American workers are complex. Pending further study, recent North American publications treat the genera as we did in the *Butterflies of British Columbia*. Where they differ, it is in treating some genera as subgenera.

I suggest that readers of *Boreus* accept the genera of the Lycaenidae in question as they are treated in Butterflies of British Columbia or treat them as subgenera of *Callophrys* and *Plebeius*. This will preserve the stability of names in North American butterfly publications until future work offers an acceptable alternative.

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SOCIETY BUSINESS

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA
ANNUAL GENERAL MEETING – 2001 CENTENNIAL MEETING

Pacific Agricultural Research Centre, Summerland: Thursday, 27 September 2001

SCIENTIFIC PROGRAM

9:00-9:10 Welcome and Opening Remarks. **Barry Grace**, Acting Director, PARC.

9:10-9:15 Announcements. **Keith Deglow**, PARC

Morning Session I: Chair: Rob Cannings

9:15-9:30 Carabid ground beetles in agro-ecosystems in the Fraser Valley, BC.

David Raworth and **Mairi Robertson**, PARC, Agassiz

9:30-9:45 Forestry and Butterflies in British Columbia. **Crispin S. Guppy**, Quesnel and **Norbert Kondla**, Ministry of Sustainable Resource Management, Castlegar.

9:45-10:00 Modelling the spread and impact of the mountain pine beetle

Bill Riel and **Terry Shore**, Canadian Forest Service, Victoria

10:00-10:15 The first record of larvae of *Culiseta minnesotae* Barr (Diptera: Culicidae) in British Columbia. **Peter Belton** and **Erin Desautels**, Simon Fraser University, Burnaby; and Dirk Lewis, Fraser Valley Regional District, Chilliwack

Morning Session IIChair: Lorraine Maclauchlan

11:00-11:15 The Dragonflies of northern British Columbia: field surveys, collections development and public education. **Rob Cannings**, Royal British Columbia Museum, Victoria.

11:15-11:30 Attempted Mating Disruption of *Synanthedon sequoiae* in Lodgepole Pine in the North Okanagan, BC. **Ward Strong**, BC Ministry of Forests, Vernon.

11:30-11:45 Hyperbole and hysteria along the path to enlightenment *OR* Show me your genitalia and I'll tell you what species you are *OR* The brown recluse (*Loxosceles reclusa*) and the hobo spider (*Tegenaria agrestis*) in British Columbia (Araneae: Sicariidae and Agelenidae). **Robb Bennett**, BC Ministry of Forests, Saanichton.

11:45-12:00 Pesticide effects on the relative abundance of *Peristenus howardi* Shaw (Hymenoptera: Braconidae), a parasitoid of *Lygus hesperus* Knight (Hemiptera: Miridae) in central and southeastern Washington State.

John A. Rumph, Washington State University, Pullman.

Afternoon Session IChair: Terry Shore

1:30-1:45 An ancient attraction. **Peter Belton**, Simon Fraser University, Burnaby

1:45-2:00 Does size really matter to the bark beetle parasitoid *Roptrocerus xylophagorum* (Hymenoptera: Pteromalidae)? **S.L. VanLaerhoven and F.M. Stephen**, Simon Fraser University, Burnaby

2:00-2:15 Indirect mutualism: Ants and the yucca-yucca moth system. **J. Perry**, Simon Fraser University, Burnaby

2:15-2:30 *Stylops shannoni* (Pierce) (Stylopidae, Strepsiptera) a new species for British Columbia? **Rex Kenner**, University of British Columbia, Vancouver

Afternoon Session II Chair: Ward Strong

3:00-3:15 *Platypus mutatus*, an ambrosia beetle injurious to poplars in Argentina: potential threat to Canada. **René I. Alfaro** and **Leland M. Humble**, Canadian Forest Service, Victoria

3:15-3:30 Mapping richness and rarity hotspots for insects in British Columbia.

Geoff Scudder, University of British Columbia, Vancouver

3:30-4:30 **BUSINESS MEETING**

Abstracts Of Papers Presented At ESBC Centennial AGM 2001

***Platypus mutatus*, an ambrosia beetle injurious to poplars in Argentina: Potential threat to Canada. René I. Alfaro and Leland M. Humble. Pacific Forestry Centre, Canadian Forest Service, Victoria.**

We describe the biology of Platypus mutatus and the damage it causes to deciduous trees in Argentina. If introduced to Canada, Platypus mutatus could be injurious to forestry and fruit trees.

An Ancient Attraction. Peter Belton, Biological Sciences, Simon Fraser University, Burnaby BC V5A 1S6

Although the ears (antennae) of female mosquitoes are about as sensitive as those of males they are neither attracted nor repelled by any sound tested so far. Closely related and anatomically similar *Corethrella* (Chaoboridae) females however have possibly been attracted to the sounds of singing male frogs since the Cretaceous era. Experiments in progress, some with Art Borkent in Costa Rica, are investigating the possibility of a similar relationship in frog-feeding mosquitoes.

The first record of larvae of *Culiseta minnesotae* Barr (Diptera: Culicidae) in British Columbia. Peter Belton and Erin Desautels, Dept. of Biological Sciences, Simon Fraser University, Burnaby and Dirk Lewis, Fraser Valley Regional District, Chilliwack.

Adults of this little-known species have been trapped previously in Canada, including two females from the Pitt River. Larvae may have been collected only once before in Canada, in Manitoba. This June we collected larvae in the eastern Fraser Valley from three permanent or semi-permanent pools north and south of the river and within an 18km radius. The larvae and their habitat will be described in more detail.

Hyperbole and hysteria along the path to enlightenment OR Show me your genitalia and I'll tell you what species you are *OR* The brown recluse (*Loxosceles reclusa*) and the hobo spider (*Tegenaria agrestis*) in British Columbia (Araneae: Sicariidae and Agelenidae). Robb Bennett, BC Ministry of Forests, Saanichton.

A wave of (completely unwarranted) brown recluse and (primarily unwarranted) hobo spider hysteria has gripped certain regions of British Columbia in recent years. The author discusses the occurrence of the brown recluse spider in BC and the fact and fantasy behind the hobo spider, the known distribution of the hobo in BC, and how to identify this species and its close relatives in the funnelweb spider family. The brown recluse has never been recorded in British Columbia or anywhere else in Canada. The hobo spider is rare, but locally abundant, at scattered localities across extreme southern British Columbia. There may be no factual basis for the belief that it is medically important. As with most spiders, genitalic characters of the hobo provide the only means for accurate and reliable identification and separation from its close relatives.

The Dragonflies of northern British Columbia: Field surveys, collections development and public education. Rob Cannings, Royal British Columbia Museum, Victoria.

A multi-year project headed by the Royal BC Museum and the BC Conservation Data Centre is surveying the Odonata of British Columbia north of 52º N latitude. Dragonflies are important indicators of ecosystem health and comprehensive surveys have never been performed in most northern BC areas. Goals include the study of the distribution, status, habitat requirements and management needs of the species involved, with emphasis on rare taxa. The promotion of public knowledge and the involvement of volunteers in monitoring these insects is a priority of the project.

Forestry and Butterflies in British Columbia. Crispin S. Guppy, Quesnel and Norbert Kondla, Ministry of Sustainable Resource Management, Castlegar.

Fire suppression, cattle grazing, and reforestation results in degradation or elimination of grassland and forest habitats. Btk spraying can eliminate rare and endangered species. Mistletoe eradication programs result in reduced abundance of butterflies using mistletoe as their larval foodplant. Forest management can increase larval foodplant abundance, enhancing butterfly populations. Roads can provide puddling areas, nectar sources, and dispersal corridors.

***Stylops shannoni* (Pierce) (Stylopidae, Strepsiptera) a new species for British Columbia? Rex D. Kenner, Spencer Entomological Museum, Dept. Zoology, University of British Columbia**

The collection of a male strepsipteran and a number of stylopized bees containing both females and a second male is reported. The male strepsipterans were determined as *Stylops shannoni* (Pierce) and the bees as *Andrena hippotes* Robertson. *S. shannoni* was described from a single male and this may be the first host record and the first females for that species.

Indirect mutualism: Ants and the yucca-yucca moth system. Jennifer Perry, Simon Fraser University, Biological Sciences, Burnaby

Ants can positively affect yucca plants by interactions with pollinator and non-pollinator (cheater) moths. Ants appear to have little effect on pollinators, while decreasing oviposition by non-pollinators.

Carabid ground beetles in agro-ecosystems in the Fraser Valley, BC. David Raworth and Mairi Robertson, Agriculture and Agrifood Canada, Pacific Agrifood Research Centre, Agassiz.

Surveys of the carabid fauna in raspberry, tall fescue and blueberry fields suggest that European species predominate, and one species, *Pterostichus melanarius* accounts for about 80% of beetles caught. We are interested in determining the predatory efficacy of these beetles and have developed a technique for estimating numbers per unit area from pitfall and temperature data.

Modelling the spread and impact of the mountain pine beetle. Bill Riel and Terry Shore, Pacific Forestry Centre, Canadian Forest Service, Victoria

The Canadian Forest Service has developed a population dynamics model (Safranyik et al. 1999) for the mountain pine beetle. We have also, more recently, developed a stand-based infestation and impact model for this bark beetle. In the past year we have integrated our stand-based model with the Spatially Explicit Landscape Event Simulator (SELES) (Fall and Fall 1996) which handles dispersing beetles and tracking resultant infestations across the landscape. Recently, a project was initiated by the BC Ministry of Forests that provided an opportunity to utilize this modelling approach to examine the effect of various management scenarios on tree mortality. Results are presented.

Pesticide effects on the relative abundance of *Peristenus howardi* Shaw (Hymenoptera: Braconidae), a parasitoid of *Lygus hesperus* Knight (Hemiptera: Miridae) in central and southeastern Washington State. John A. Rumph, Dept. of Entomology, Washington State University, Pullman.

The impact of insecticides on *Lygus hesperus* Knight and its parasitoid *Peristenus howardi* Shaw was studied at three different sites in Washington State. Parasitism rates were significantly higher in untreated plots of alfalfa (*Medicago sativa* L.) seed fields than in treated areas of the fields ($P < 0.000$).

Mapping richness and rarity hotspots for insects in British Columbia. Geoff Scudder, Centre for Biodiversity, University of British Columbia, Vancouver.

No abstract submitted.

Attempted Mating Disruption of *Synanthedon sequoiae* in Lodgepole Pine in the North Okanagan, BC. Ward Strong, BC Ministry of Forests, Vernon.

The Pine Pitch Moth, *Synanthedon sequoiae*, damages Lodgepole pine in Interior BC seed orchards, research plots, and clone banks. An unreplicated mating disruption trial resulted in no reduction in trap catches or new pitch masses in treatment versus control plot. Possible reasons are small plot size, immigration of mated females, and incomplete pheromone complex.

Does size really matter to the bark beetle parasitoid *Roptrocerus xylophagorum* (Hymenoptera: Pteromalidae)? S.L. VanLaerhoven and F.M. Stephen, Dept. of Biological Sciences, Simon Fraser University, Burnaby

We examined the influence of body size of two bark beetle species, *Dendroctonus frontalis* Zimmermann and *Ips calligraphus* (Germar), on body size and baseline egg load of one of their parasitoids, *Roptrocerus xylophagorum* Ratzeburg. Infested bark was collected from southern pine beetle (*D. frontalis*) infestations in the Talladega National Forest in Alabama during 1999-2000. Newly emerged *R. xylophagorum* females were collected once daily, measured (top of head to tip of abdomen) and dissected for a baseline egg load count from *D. frontalis* infested bark or *I. calligraphus*-infested logs. Female *R. xylophagorum* reared from the larger host, *I. calligraphus*, were 0.5 mm larger on average than those from the smaller host, *D. frontalis*. Females of *R. xylophagorum* from *I. calligraphus* had upon emergence, an average of 3.8 more mature eggs and 1.1 more immature eggs than females from *D. frontalis*. A significant positive correlation existed between female body length of *R. xylophagorum* and number of mature eggs per female reared from *D. frontalis* and *I. calligraphus*. The greater nutrient resource from a larger host has several effects on *R. xylophagorum* including increased body size and egg load and potentially increased longevity, longer ovipositor, and increased fecundity.

ENTOMOLOGICAL SOCIETY OF BRITISH COLUMBIA

Fall 2001 Business Meeting
Pacific Agriculture Research Centre
Summerland, BC

7 September 2001
3:36 pm – 4:20 pm

SUMMARY OF ACTION ITEMS

Cannings	**Ricker commemorative article for *Boreus* and response to Karl Ricker**
Cannings & Bennett	**Library development**
Riel & Guppy	**Take over Website and *Boreus* Editorships, respectively**

1) Call to Order (Rob Cannings)

Meeting called to order at 3:36 pm.

1.1 Meeting was immediately disrupted by Peter Belton. Noting that ESBC meetings have been conducted without a gavel for some time (the original gavel, of uncertain provenance but believed to have been borrowed from a child's toolbox, mysteriously disappeared many years ago), Peter and Elspeth Belton took it upon themselves to have a suitable replacement instrument manufactured. Belton presented the new gavel to Cannings in the hope of initiating a new tradition and era of meeting decorum.

2) Approval of Agenda (Cannings)

Approval of agenda moved by Karen Needham, seconded by Terry Shore, carried.

3) Approval of Minutes from Fall 2000 Business Meeting (Cannings)

Approval of Fall 2000 Business Meeting Minutes (circulated to Membership earlier in *Boreus* and posted on ESBC web site) moved by Hugh Philip, seconded by Peter Belton, carried.

4) Business Arising from Minutes

3.1 Website Improvements (Ward Strong) See Web Master's Report (Item 9) below.

3.2Education Grants (Strong) Because of financial constraints, nothing pursued this year. With help from K. Needham, ESBC may offer Education Grants in 2002. $1,200 will be available (½ ESC ESC, ½ ESBC).

5) President's Report (Cannings)

Cannings read the following report:

"It has been an honour to serve as ESBC President in this year of our Society's centenary. and it is a personal pleasure to be presiding over our general meeting in the Interior of British Columbia, here in Summerland, the town where I was born. I also have a special fondness for our meeting location, the Pacific Agricultural Research Centre, Summerland, where my father spent much of his working life and where I played many years as a kid. To us it was simply "The Farm", a magical place of gardens and orchards, lovely natural hillsides and fascinatingly strange laboratories.

"A centenary is an impressive milestone. A hundred years is a long time, especially for a society of any sort, and I wonder if those pioneering entomologists back in the first few months of the 20th century foresaw their new idea, their fledgling society, going strong a century later.

"The organization of the agenda of the meeting, at least the scientific program, is the responsibility of the President. As usual, this year it took some work to assemble enough papers to fill the schedule. But the result is an eclectic mix of topics that will, I think, make for an enjoyable and stimulating day. These meetings work best with a wide variety of talks presented by amateurs, students and established scientists, and we have this today. But student participation is down this year, and I hope it's not the beginning of a trend. ESBC meetings are informal, easy-going events – good places for students to get experience in presenting their projects without the stress associated with bigger conferences. I know that, with the constraints of tight budgets and travel time, Interior meetings are harder to attend, and this perhaps explains some of the decline in student papers. Whatever the reason, let's continue to encourage students in the society. It would be good to have 30 or 40 per cent of the talks given by students, and with such participation we will be able to offer both the Madsen and Grant awards each year. Students are our future in the next 100 years.

"Significant progress has been made in the Society's business this year. We remain a financially sound organization. Our by-laws have been updated and published. The organization of our library and its accessibility to the membership and public are improving. Our website is growing in size and usefulness as a contact with the rest of the world. Thanks to Ward Strong for his work organizing this site. The Journal continues to flourish and this year's issue will be especially important – our centennial volume will contain articles outlining BC entomology over the past decades. Dave Raworth is stepping down as editor after four years of hard and productive work. Ward Strong is replacing Dave as editor, and we are looking for a keen and resourceful webmaster to take Ward's place. Again this year our newsletter *Boreus*, under the editorship of Phil Jones, has been a vital link among members. After three years and six issues Phil is retiring, and we need a new editor to take *Boreus* into a new era.

"As always, it is the Secretary-Treasurer who keeps the society running week-to-week. I thank Robb Bennett for his continued conscientious and outstanding performance. I thank all members of the executive for their work, especially those leaving the group at this meeting – Neville Winchester and Hugh Barclay. As noted earlier, Dave Raworth and Phil Jones are stepping down as editors but they will produce the 2001 issues of the Journal and Boreus, respectively.

"I welcome the new executive members, President-Elect Gail Anderson and Directors Cris Guppy and Ian Wilson. To our incoming President, Lorraine Maclauchlan, I wish the very best for a prosperous term. The Society is in capable hands. For all those who stood for election, a special thanks. The Society benefits from everyone's participation.

"The annual meeting is the highlight of our Society's year. It requires much organization. Keith Deglow and his colleagues have done an excellent job in sorting out all the details required and I know we all appreciate their

efforts.

> "I have enjoyed my second stint as ESBC President. All the best to all of you and our Society as we begin another year and our second century."

Approval moved by Shore, seconded by Dave Raworth, carried.

6) Secretary-Treasurer's Report (Robb Bennett)

ESBC membership and subscriber lists are stable at approximately 160 and 56 respectively.

Bennett outlined the ESBC "almost year-end" financial statement (September bank statement was still outstanding at time of Annual General Meeting but does not significantly change the financial statement. **Finalized year-end statement attached**). Society remains in good shape but financing publication of commemorative issue of Journal will be tight.

Approval of Secretary-Treasurer's Report moved by Bernie Roitberg, seconded by Sherah Vanlaerhoven, **carried**.

7) Journal Editor's Report (Dave Raworth)

Raworth read the following report:

"The December 2000 issue of the Journal of the Entomological Society of British Columbia (Volume 97) has been printed and distributed. It contains 16 peer-reviewed, scientific articles. The issue was designed and typeset by David Raworth and David Holden; the illustration on the cover was drawn by Stephanie Sopow; Maurice Perret and staff, Simon Fraser University Reprographics did the printing; Peter Belton provided the link with Reprographics and Peter and Elspeth Belton checked the blue line; Robb Bennett, Rob Cannings and Joan Kerik handled the distribution; and Robb Bennett managed the finances.

"Last year the figures for articles, with the exception of one photograph, were scanned and inserted digitally into the galleys. The final print quality was very good; authors were able to review a complete galley proof; and the Society saved about $275. These and future savings will pay for the HP 1100 printer which was purchased to provide high quality camera-ready copy.

"Every year several authors request more than 100 reprints. Due to the mechanics of printing additional reprints cause logistical problems and additional expense that is not recouped through reprint invoices. The matter was discussed at the Executive meeting 25 April 2001 and it was decided that a maximum of 100 reprints will be printed for each article.

"Volume 98 will commemorate the 100th Anniversary of the ESBC. It will be a joint volume with 14 invited papers and regular submitted papers. The Society will cover the page charges for the invited papers (about $3,800) and the Editorial committee will review each for Journal format.

"Many thanks: to the authors for their interest in publishing in the JESBC; to the anonymous reviewers who have been quick in response, and have provided thorough reviews with useful comments; and to everyone involved in publication, distribution and finance.

"Having served 4 years as Editor, I think it is time to pass the torch. Serving as Editor has been both challenging and rewarding; a very useful experience that should, I think, be shared among the membership. Ward Strong has kindly agreed to take over as Editor of the Journal in 2002. I will be available to help him as needed with the production of the 2002 issue.

“All correspondence for the 2001 issue should continue to be sent to: Dr. David Raworth, Agriculture and Agri-Food Canada, P.O. Box 1000 - 6947 #7 Highway, Agassiz, BC V0M 1A0 Please submit your manuscripts for the 2002 issue to: Dr. Ward Strong, Kalamalka Forestry Centre, Ministry of Forests, 3401 Reservoir Road, Vernon, BC V1B 2C7

“Articles for publication in the December 2002 issue are due by September 2002.”

Acceptance of Journal Editor’s Report moved by Rex Kenner, seconded by Lorraine Maclauchlan, **carried**.

8) Boreus Editor’s Report (Phil Jones)

Jones read the following report:

“The July 2001 issue of your newsletter *Boreus* consisted of the following: five Announcements and Notices, five profiles of BC entomologists, two book reviews, one scientific note, one field note on butterflies, a compilation of ESBC current by-laws and as part of a continuing series on our entomological past, a look at our federal entomological Research Institutes as they were in the 1960’s, and photos and profiles of three Canadian entomologists, circa 1914.

“For me, one of the highlights of the issue was the contribution by our President, Rob Cannings, on the influence we as entomologists may have on “…stimulating the thirst for knowledge in a child”.

“Once again I acknowledge the assistance of Gayle Jesperson, Plant Pathologist with BCMAF in Kelowna, in formatting *Boreus*. Thank you to those who contributed to the July 2001 issue of *Boreus*. The deadline for contributions to the December 2001 issue of *Boreus* will be November 15, 2001.”

Discussion – Jones would like to be replaced as *Boreus* Editor but will stay on to produce the December issue.

Acceptance of *Boreus* Editor”s Report moved by Kenner, seconded by E. Belton, **carried.**

·Web Editor’s Report (Ward Strong)

Strong read the following report:

“The website is in good shape and up-to-date. Many small changes have improved the contents, appearance, and user-friendliness. Larger changes include the following:

- ESBC Bylaws have been added; the Constitution section has been removed since we don't seem to have a constitution which is separate from the Bylaws.
- All electronic issues of *Boreus* are on-line.
- The Tables of Contents of recent Journals have been included.
- Historical listings of the winners of the James Grant, Harold Madson, and the Student Travel Scholarship awards have been added.
- Maps indicating the locations of members, journal subscribers, and journal trading partners are up.
- A written description of our society insect, *Boreus elegans*, has been provided by Rob Cannings.
- Links of Interest grows as people send me interesting items, but it's not terribly complete since I do very little "pleasure cruising."

  “Since I'll be the new editor of the Journal after the publication of the 2001 volume, I'll be passing on the reins of Web Editor. This has been a fun and gratifying job. It requires a minimal knowledge of HTML, but with a knowledge of CGI scripting, the new editor could implement several exciting new areas identified by the Executive last year, including an Entomologist's Registry, the Amateur Entomologist's Rendezvous, and an Education Connection for schoolteachers and other educators. If you are interested or can nominate a candidate, please talk to me.”

Discussion – Strong led discussion of development of photo gallery of BC insects on the website. This idea has strong support from membership.

Approval of Web Editor's report moved by Cris Guppy, seconded by Keith Deglow, **carried**.

10) New Business

10.1 Crest and Centennial Gavel

Through the generosity of Peter and Elspeth Belton, ESBC now has a new gavel (see Item 1.1). Also through the Beltons, ESBC has purchased a metal plate with an engraving of the Society's logo. This item is to be mounted upon some suitable piece of woodwork by some suitable woodworker. Cannings displayed the plaque, read out the inscription on the gavel mount, and thanked the Beltons for their gift and long history of service to ESBC.

10.2 Bill Ricker (Cannings)

Bill Ricker, long (probably longest) standing member of ESBC (Honorary Life Member since 1989) and world-renowned scientist died 8 September 2001 at the age of 93. To commemorate his passing, Cannings read the 1989 Honorary Life Member nomination letter and excerpts from an article published in the Victoria Times-Colonist on 11 September 2001.

Nomination (October 1989).

William Edwin Ricker, OC, BA, MA, PhD, DSc, LLD, FRSC.

Bill Ricker is one of the longest-standing members of the Entomological Society of British Columbia. He joined the Society in the early 1930's while investigating salmon biology as a graduate student and a scientific assistant with the Fisheries Research Board of Canada. Although he is best known in the biological community as a pioneering fisheries biologist, his contributions to entomology are significant; and include over 30 papers dealing with aquatic groups. His work on the Plecoptera is central to our knowledge of the distribution and systematics of this important order of aquatic insects. He has described or co-described about 90 species of stoneflies currently considered valid, and has named 46 genera and subgenera. Several publications, including the "Stoneflies of southwestern British Columbia" (1943), "Systematic studies in Plecoptera" (1952), "Plecoptera" (in Ward and Whipple's "Freshwater Biology" – 1959), and "The classification, evolution and dispersal of the winter stonefly genus *Allocapnia*" (1971) are milestones in the study of Plecoptera.

Many of Bill Ricker's contributions, although made in fisheries biology, have wide application in other disciplines. This is especially true of his work in statistics, bionomics, life-history theory, and limnology. His energy, wide-ranging interests and curiosity about the natural world make him a man to be emulated by all biologists.

It is our great pleasure to nominate Bill Ricker as an Honorary Life Member of the Entomological Society of British Columbia.

(signed) Robert A. Cannings, Geoffrey G. E. Scudder, Sydney G. Cannings, and Crispin S. Guppy.

From the **Times-Colonist (11 September 2001)**

Fish scientist fostered international goodwill

William Ricker's decades of dedication to his work left a legacy of ground-breaking fisheries research as well as goodwill between Canada and Russian scientists. . . . He received numerous awards, including the Order of Canada in 1986. . . . father's body of work includes 737 manuscripts, 305 published . . . Ricker belonged to a

Sherlock Holmes organization and wrote a published story about Homes' nemesis Professor James Moriarty . . .He loved music and played with the Nanaimo Symphony many years ago. . .

Discussion – Son, Karl Ricker, has sent a letter to ESBC documenting his father's achievements. **Action: Cannings will write a commemorative article for *Boreus* and a response to Karl Ricker.**

9.3 Executive Elections Report (Maclauchlan)

Maclauchlan thanked all who agreed to run for election to ESBC executive positions. New President–Elect is Gail Anderson, new Directors are Cris Guppy and Ian Wilson.

9.4 Graduate Student Scholarships (Cannings)

Due to low number of applications for ESBC Graduate Student Scholarships, only one was awarded this year. Cannings thanked the review committee for their service and announced that Gabriella Zilahi-Balogh was the successful applicant.

9.5 Student Paper Presentation Awards (Winchester/Maclauchlan)

Similarly, due to the low number of student presentations at the 2001 AGM, only one Student Paper Award was made. Jennifer Perry (SFU, "Indirect mutualism: Ants and the yucca-yucca moth system") received a combined Harold Madsen (PheroTech) and James Grant (North Okanagan Naturalists) Award from Cannings. Cannings thanked the sponsors for their continued support for entomology students.

9.6 Library Report (Bennett)

Bennett outlined a library discussion paper prepared by Leslie Hatch (**see attached**) and current Executive-led work library activities. Cannings and Bennett will work with Hatch to review ESBC library holdings and draft a collection development policy for review by Executive by 31 December 2001. Further action will be decided upon at the Spring 2002 Executive meeting. **Action: Cannings and Bennett to pursue development of library.**

9.7 Call for new Boreus and Website Editors (Cannings)

Cannings reiterated the pressing need to find new Editors for *Boreus* and Website. Bill Riel offered to take over as Website Editor.

NOTE: Shortly after meeting adjournment, Cris Guppy indicated his interest in being *Boreus* Editor. **Action: Riel and Guppy to work with current Editors Strong and Jones and assume web and newsletter editorial duties as soon as possible.**

9.8 Installation of New President (Cannings)

With a look of infinite relief, Cannings passed the gavel to incoming President Maclauchlan. Gripping it with fervour and authority, she noted the need for stronger student involvement in ESBC, thanked all who participated in the 2001 AGM, and called for other new business.

11) Adjournment

There being no other new business, Maclauchlan called for a motion of adjournment. With alacrity this was proposed by Philip, seconded by Strong and **carried** at 4:20 pm.

Minutes submitted by:
Robb Bennett, Secretary
8 November 2001

Entomological Society of British Columbia

2001 Year-End Financial Statement (1/x/2000-30/ix/2001)

Forwarded

1. Bank balance forwarded on 30 September 2000 **10,640.80**

Receipts

1. Dues Memberships (incl. 94.66 US exchange) Subscriptions (incl. 137.97 US exchange)	2,598.66 1,087.03	3,685.69
2. Publication Page/reprint charges (incl. $742 fr 1999 + 812.00 US exchange) Back issues (incl. $23.23 US exchange)	5,508.70 259.93	5,768.63
3. Other income Interest PheroTech (H. Madsen Awards – 1999-2001) N Okan. Naturalists (J. Grant Student Award – 2000) 2000 AGM registration Term deposits interest	1.62 300.00 200.00 850.00 1,390.95	2,742.57
4. Total Receipts		**12,196.89**

Expenditures

1. Publication Journal printing (1999) Journal printing (2000) Boreus printing (traffic ticket) Editor's expenses 2000 Journal typesetting	6,609.00 5,589.00 15.00 500.00 547.50	13,260.50
2. Other expenditures Student awards (Frid (Grant), Mondor (Madsen)) Scholarships (Bleiker, Mondor) Society registration (2000) Society By-laws photocopying Bank deposit error 2000 AGM expenses Service charges	300.00 1,000.00 25.00 25.00 24.00 388.00 60.00	1,822.00
3. Total Expenditures		**15,082.50**

Balance

10,640.80 + 12,196.89 - 15,082.50 7,755.19

Other Assets – Island Savings Credit Union

1. Cash	19.73	19.73
Balance forward		
2. Membership Equity Shares		5.00
3. Term Deposits	20,000.00	27,080.14
1203595-1 @ 5% (start 16/i/98, matures 16/i/03)	1,038.10	42.04
1203595-2 @ 3.8% (start 30/iv/99, **matures 30/iv/02**) 30/iv/01 interest payment	6,000.00	
1203595-3 @ 6.25% (start 17/i/00, matures 17/i/05) (1,000.00 interest from #1 + 5,000.00 from general account)		
4. Total Other Assets		**27,104.87**

Bank Balance on 30 September 2001 $7,755.19

Other Assets on 30 June 2001 $27,104.87

Statement prepared 16 September 2001, revised 4 October 2001

Robb Bennett, ESBC Secretary/Treasurer

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The Entomological Society of BC Library Project
** DISCUSSION PAPER **
Submitted by: Leslie Hatch, Nota Bene Information Services
22 January 1999

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Phase I: Collection Development

Goal: To identify the journals and monographs which should be retained in a "working" collection, i.e., a collection which is catalogued and classified according to library standards, and available on the open shelves

1. Collection Development Policy

o Develop a basic collection development policy to provide direction in:

- Evaluating and weeding the current collection
- Making decisions on future acquisitions
- Identifying exchanges which should be initiated, continued, or terminated
- Handling duplicates, including materials that are already available in the PFC collection

- Define the scope of the collection, e.g., subjects covered and level of coverage (comprehensive, selective, or introductory)

- Determine retention policies for the journals and monographs

2. Evaluation and Weeding

A. Journals

1. Inventory

o Identify any duplication of materials in the ESBC and PFC collections, for journals with titles in the alphabetical sequence between S and Z

2. Evaluation and Weeding

o With representatives from the ESBC, and with reference to the collection development policy:

- Review all journals with incomplete or limited runs, which are no longer being received by the ESBC
- Review all journals with significant runs, and journals currently being received by the ESBC

- Determine whether to retain, in the working collection:

o All issues

o Selected issues

- as part of the journal collection
- as part of the monograph collection

o No issues

- Update the manual inventory cards

3. Preservation

o Assess the feasibility of binding the journals retained in the working collection

* Identify journals which would be given priority for binding, i.e., because issues are showing visible signs of deterioration

B. Monographs

1. Inventory

o Determine whether a complete inventory of the monographs is required

* If it is, prepare an automated inventory of the monographs

2. Evaluation and Weeding

o With representatives from the ESBC, and with reference to the collection development policy:

* Review all monographs

- Determine which monographs should be:

o Retained

o Discarded

o Updated, then discarded

* Prepare a list of monographs for which newer editions should be purchased

- Prepare an automated inventory of monographs retained, which would provide the information needed to search for cataloguing records in online databases

C. Dispensation of Weeded Materials

o Determine which of the weeded items should be:

- Discarded
- Retained in storage, for a specified period

Phase II: Collection Organization

Goal: To produce automated cataloguing records and spine labels for:

- All items in the working collection identified in Phase I
- All monographs and journals which are acquired or received subsequently

1. Developing the Automated Catalogue

o In consultation with the head of the PFC Library and representatives from the ESBC, determine

policies and procedures for integrating cataloguing records for the ESBC collection into the PFC library database

2. Retrospective and Current (Ongoing) Cataloguing

o Search online bibliographic databases for cataloguing records for:

- All journals and monographs in the working collection
- Any new journals and monographs that are acquired or received

- Download and edit any records located

o Create original cataloguing records for all items not located in the online databases

o Update cataloguing records to reflect current holdings, such as the receipt of new issues of journals, or additional copies of monographs

3. Labeling the Collection

o Produce and affix spine labels to items as they

are catalogued, or entered in the library database

Phase III: Collection Awareness and Access

Goal: To encourage and provide access to the collection, through the ESBC web page

1. Collection access policies and procedures

o Develop policies and procedures for providing web access to the collection, including:

- Format of entries
- Frequency of updates to the file
- Responsibility for updates to the file
- Handling of interlibrary loan requests