

NEWSLETTER

FALL 2002

CORDILLERAN SECTION
GAC
GEOLOGICAL ASSOCIATION OF CANADA

INSIDE THIS ISSUE:

BCSG Strikes Copper

Brown Bag Discussion Group

Mark Smith
Clinton Smyth
Jim Ryan

GAC-MAC-SEG Vancouver2003

GAC Awards

Local Reporter wins
Yves Fortier Award

Publications Update.

Students

Outside events

Fall is upon us! Most geologists are back in town now: reports are being compiled and budgets prepared for the next seasons programs. So how was the past season? It started out with a rush for diamonds in the NWT and Quebec, then switched gears to gold. There are persistent rumours that base metals are next!

This year we are fortunate to have a number of new councillors on board. Brock Riedell, chief geologist for BHP Billiton World Exploration Inc. will bring some industry balance to the council. Those of you who have worked in the southern extensions of the Cordillera – Nevada to be exact – may have run across Brock at some of the GSN conferences down in Reno. Filling the Treasurer's post is Dean Richardson of KPMG. Dean started out in geology working in the Yukon during the summers as a student, but now works on keeping the financial end of things in order for some of the local mining companies. Two new student reps have joined council: from SFU, Derek Kinakin and from UBC, Stacey Loptson.

Planning for the joint annual GAC-MAC-SEG conference in Vancouver May 25 – 28, 2003 is well under way, with the first circular ready to hit the streets any day now. There is an extensive program in this conference and many of the sessions will be of particular interest to the local mining-exploration community, as well as a number of the short courses, workshops and field trips. There's even an "Earth Quake fair" on Sunday, May 25, so bring the family along and shake it up! Check it out at www.vancouver2003.com. The Cordilleran Section is actively involved with the conference with the preparation of publications such as the circulars, abstract volume and CD as well as field trip guidebooks.

For the upcoming year the Section's activities will focus largely on shepherding along several publications that it is co-publishing. Brown Bag discussion will meet from time to time to hear about new technologies, exploration and geological developments in the Cordillera and elsewhere. Contact us with ideas, issues or news and views that you feel the Section should be focusing on.

Carl Verley





Cordilleran Section — GAC 2002-2003 Council

President: Carl Verley
Past-President: Peter Mustard
Vice-President: Brett Gilley
Secretary : Derek Kinakin
Treasurer: Dean Richardson
Publications Sales: Vacant
Membership: Keith Patterson
Councillors at large:
 Kevin Cameron
 Ted Danner
 Derek Kinakin
 Laura Laurenzi
 Stacey Loptson
 Brock Riedell
 James Ryan
 Stuart Sutherland

Contact us by email through:
 Gilley@sfu.ca

CORDILLERAN SECTION—GAC
 P.O. BOX 398,
 STN A BENTALL CENTRE
 VANCOUVER, B.C. V6C 2N2

www.sfu.ca/earth-sciences/gac/

BCGS Strikes Copper

Atlin, B.C. The BC Geological Survey working with the Geological Survey of Canada in the Atlin Targeted Geoscience Initiative Project discovered a significant copper occurrence this summer southwest of Atlin (see: www.em.gov.bc.ca/Mining/Geolsurv/WhatsNew/default.htm). As many know the coast belt has been a prolific copper producer over the years with production coming from mines at Britannia, Anyox and Kennecott, Alaska. Perhaps we are in the early stages of a revival with this new and significant discovery. Rumor has it that Imperial Metals were the lucky ones to be on the ground and tie up the bulk of the favourable stratigraphy (with the exception of one claim unit). Apparently, the rush to this discovery was fairly quiet compared with previous releases. No dog fights as competitors helicopters swooped staking crews in to tie up ground.

Brown Bag discussion Group:

On November 26th Jim Ryan of the GSC will give an update on latest results of mapping in Yukon-Tanana Terrane rocks in the Stewart River area, Yukon. *Watch the website for future Brown Bag talks.*

The year started early for the Brown Bags with Mark Smith of Dahrouge Geological Consultants giving a presentation on Commerce Resources' Fir Tantalum-Niobium bearing carbonatite near Blue River, B.C. on September 24. Mark gave an excellent presentation that highlighted some of the unique features of this deposit. Hand specimens of the pyrochlore mineralization were a great supplement to the talk. The Fir carbonatite has higher levels of tantalum than most carbonatites. The recessive nature of the carbonatite makes exploration a challenge in the covered area, but presents a great opportunity for finding more on the property.

On November 1st, Clinton Smyth of GeoReference Online Ltd. presented a system for describing and comparing Europe's largest mineral deposits with particular attention to the advantages of standard terminology (*continued p.5*).

Publications Update:

The section's publication portfolio will be building up substantially over the next couple of years. It is hoped that this investment will enable the Section to host workshops and short course in the future as well as looking at further publications.

Currently we have just received the second draft of *Vancouver Underfoot: the Story of Vancouver's Geology and Landscape*, by John Clague and Bob Turner. This book focuses on the landscape, what forces formed it and the natural hazards that remain with us in the lower mainland. It should be ready in time for the GAC-MAC-SEG conference in Vancouver next spring. Peter Mustard and Danny Hora are co-authoring a book: *Geology Tours of Vancouver's Buildings and Monuments*, which is being published jointly by the Section and GAC National. This book will also be ready in time for GAC-MAC-SEG Vancouver2003 as it will be used for one of the field trips held during the conference.

Down the road a bit is the *Geology of the Canadian Cordillera* co-authored by Jim Monger, Ray Price and Peter Mustard. This volume will be co-published again by the Section and GAC National. It is estimated that this book will be out sometime in 2004.

Lastly, the Section will be responsible for publishing the Field Trip guidebooks for GAC-MAC-SEG Vancouver2003. These informative guidebooks are always popular and provide good post conference sales revenue for the Section.



Highlights of the Technical Program of special interest to Explorationists

SYMPOSIA

Sustainable Development In The Mineral Resources Sector: An Oxymoron Or Golden Opportunity?

Metals In The Environment

SPECIAL SESSIONS

Environmental Studies Of Mine Wastes

Gis: A Leading Edge For Geoscientists In The 21st Century

Massive Sulphides On The Edge: The Formation Of Vms And Sedex Deposits Within Evolving Continental Margins

Tectonic Controls On Paleoproterozoic Mineralization

Gem Materials

Applications Of Geophysical Inversion For Mineral Exploration: Current Status And Vision For The Future

Canadian Diamond Deposits: History And Techniques Of Their Discovery

New Perspectives On The Evolution Of The Platinum Group Elements In Magmas And Ore Deposits

Ore-Forming Processes In The Porphyry Copper (Gold) And Epithermal Gold Environments: What Do We Really Know?

Cutting Edge Exploration Techniques For Concealed Ore Deposits

Paleozoic Evolution And Metallogeny Of Pericratonic Terranes At The Ancient Pacific Margin Of North America

GAC-MAC-SEG Vancouver2003

GAC-MAC conferences come to Vancouver every decade or so – the last one was in 1990 to be exact. The conference that is coming up in May 2003 promises to be especially stimulating as the Society of Economic Geologists will be jointly participating. A listing of some of the sessions, workshops, short courses and field trips that will be of interest to the local mining exploration community is tabulated below. There are a number of other very interesting symposia and sessions in addition to these – so be sure to check out the conference website: www.vancouver2003.com.

WORKSHOP

SEG Workshop: Understanding Geophysical Inversions For Mineral Exploration

SHORT COURSES:

Alkaline Cu-Au Porphyries And Fe-Oxide Cu-Au Deposits: Distinct Deposit Types, A Continuum Or Genetic Linkage?

Environmental Aspects Of Mine Wastes

3-D Seismic Interpretation

FIELD TRIPS

PGE Environments In The Cordillera

Cordilleran Ore Deposits Field Trip

Highland Valley Porphyry Copper Deposits

Volcanogenic Massive Sulphide Deposits At Myra Falls, Vancouver Island



If Fall comes can . . . ? . . . how did that expression go ? . . .

GAC National Awards

Local Sun Newspaper Columnist, Larry Pynn wins Yves Fortier Earth Science Journalism Award . . . check the next issue of *Geolog* for the details on this story.

Last year Jim Monger was nominated for, and won, the Logan Medal, the highest award offered by GAC National (see the June 2002 newsletter for details). GAC National gives out many different awards for geoscientists each year (a full listing of awards can be found on the GAC National website <http://www.esd.mun.ca/~gac/>). In this article we have summarized a partial list of available awards, to be considered for any of these a geoscientist must be nominated. If you know of someone in the geoscience community who deserves recognition in one of these categories please contact the GAC Cordilleran Section Executive

The Logan Medal

The Logan Medal is the highest award bestowed by the Geological Association of Canada. It is awarded to an individual who has made outstanding contributions to geoscientific knowledge in Canada.

Past Presidents' Medal

The Past Presidents' Medal of the Geological Association of Canada is awarded to a geoscientist who during the first decade or so of her/his career is judged to have made an outstanding accomplishment in research, development, or applications in their particular field. The recipient shall be expected to undertake a lecture tour in Canada, visiting major centres, at the expense of the Association.

J. Willis Ambrose Medal

The Ambrose Medal of the Geological Association of Canada is awarded to an individual who has rendered sustained distinguished service to the earth sciences in Canada, through outstanding accomplishments in one or more of the following realms: education; research; management; and administration; promotion; and institutional, professional or society affairs. This medal is awarded annually unless no suitable candidate is identified.

The E.R. Ward Neale Medal

The E. R. Ward Neale Medal of the Geological Association of Canada is awarded to an individual who has made, or is making, significant contributions to the public awareness of geoscience. The award recognizes outstanding efforts to communicate and explain geoscience to the public through one or more of the following vehicles: public lectures, print or electronic media articles, school visits, elementary

and secondary school educational materials, field trips, science fairs, and other public communications. The medal will be awarded annually unless no suitable candidate is nominated. *Continued on page 5.*

Distinguished Fellows

The honor of Distinguished Fellow is intended for the Fellows of the Association who fit any or all of the following categories:

1. significant contributions to geoscientific knowledge in terms of research, development or applications of geosciences;
2. significant contributions to geoscience education;
3. significant contributions to institutional, professional or society affairs in terms of administration, management and/or promotion of geosciences.

GAC Service Awards

The Geological Association of Canada is a volunteer organization. In recognition of the outstanding contribution of its volunteers, the Association has instituted a series of service awards to be given out as significant contributions are made. The series includes: Honorary Life Members Award, 50-Year Members Award, the Distinguished Service Award, and the Volunteer Award.

Honorary Life Members Award

The GAC has established a series of service awards to recognize outstanding volunteer efforts: Honorary Life Membership. This is the highest award, made to an individual who has contributed long-term distinguished service to the Geological Association of Canada. There is no age limit. Recommendations of persons for honorary membership may be made at any time to the Council. The recipient shall not be required to pay dues. The award will include a framed certificate and a GAC publication of the recipient's choice.

Distinguished Service Award

This award is made to those people who have made an outstanding contribution to the GAC through volunteer work. There is no limit to the number of awards that can be given, but this is an award of distinction and should be given only for specific exemplary service. The award will consist of a plaque bearing the GAC logo, the name of the winner and the particular contribution being recognized.

Volunteer Award

The objective of this award is to recognize those members and non-members who have made a significant singular contribution through voluntary service to the Association. There is no limit to the number of awards that can be given. The award will consist of an unframed certificate of achievement

From page 2:

Clinton described a computer based system – “Mine Match” – for comparing mineral deposits with a database of mineral deposit models. The system is fully referenced and as such is auditable in terms of information sources. It has the advantage of being able to constraint mineral occurrences within a framework of known mineral deposits types. For those of us who are frequently dealing with the disclosure requirements of National Instrument 43-101, this system provides a fast and efficient way to provide regulatory bodies with mineral deposit information. Check out this unique system at www.georeferenceonline.com.

In a related topic, Dr. Allan Goode of AMIRA International gave a presentation on AMIRA’s mineral deposit database *Data Metallogenica* on October 29th in Vancouver. This database is founded on the collection of Dr. Peter Lasnicka and presently contains high resolution digital images of 3000 rock sets and 1200 individual samples from 4000 mineral deposits in 100 countries: over 65,000 samples of ores, host, alteration and regolith. The database also includes over 5500 interpreted mineral reflectance spectra (PIMA) from epithermal and porphyry settings. Over time the data collection will grow as more deposits are added and as graphical information such as maps and sections are added. This database provides an excellent resource for those needing information on ore deposits quickly. However, access to the database is not free, but subscriptions are quite reasonable and can be even more reasonable for members of sponsoring organizations – let us know if you think GAC should become a sponsor of this database. Data Metallogenic can be viewed at www.datametallogenic.com.

From page 4:

As mentioned in the last Newsletter, Dr. Stuart Sutherland has organized Mary Lou Bevier’s nomination for the E. Ward Neale award. As you may be aware, apart from her regular teaching activities at UBC, Mary Lou has been very active in outreach work including volunteering with Scientists and Innovators in Schools teaching geoscience to First Nations, and lecturing K-12 teachers about geoscience through Science World’s Loon Lake Science program. Mary Lou also acts as a resource person for public awareness of geoscience issues. GAC National has informed us that this nomination will be kept on file for 2 more years and brought up at the next meeting of the awards committee. Letters of support for this nomination would be appreciated and should be forwarded either to:

Dr. Stuart Sutherland
Department of Earth and Ocean Sciences
The University of British Columbia
6339 Stores Road, Vancouver, BC, V6T 1Z4
Fax: 604-822-6088
Email: ssutherland@eos.ubc.ca

Or:

Scott Swinden,
Nova Scotia Dept. of Natural Resources,
P.O. Box 698,
Halifax, NS B3J 2T9;
Tel: (902) 424-7943; FAX: (902) 424-7735
Email: hsswinde@gov.ns.ca



CORDILLERAN EXPLORATION ROUNDUP 2003



New Location!

**WESTIN BAYSHORE RESORT & MARINA
VANCOUVER, CANADA
JANUARY 27 - 30, 2003**

For more information see the Roundup website at:
<http://www.bc-mining-house.com/rdup2003/roundupoverview.htm>

OTHER OUTSIDE EVENTS:**2002**

November 7: UBC Colloquia 12:00 pm, Rm 330-A
EOS main building Chen Zhu University of Pittsburgh, PA, *Hydrogeological Responses to Paleoclimatic Changes During Late Pleistocene and Holocene, Black Mesa Basin, Arizona*

November 13: **MEG** Tom McCandless, Ashton Mining Ltd. *Peculiarities and Priorities in the Search For Diamonds*

November 13: UBC Colloquia 12:00 pm, Rm 330-A
EOS main building David Hyndman Department of Geological Sciences, Michigan State University Efficient Large-Scale Bioremediation in a Heterogeneous Aquifer: The Schoolcraft Bioaugmentation Experiment

November 14: UBC Colloquia 12:00 pm, Rm 330-A
EOS main building, George Lager University of Louisville, *High-pressure Crystal Chemistry of Hydrous Minerals*

November 16-19: Yukon Geoscience Forum

November 27: **MEG** Dr. Derek Wilton, Memorial University, Newfoundland
Newfoundland Exploration Update

November 28: UBC Colloquia 12:00 pm, Rm 330-A
EOS main building Brian Berkowitz Dept. of Environmental Sciences and Energy Research, Weizmann Institute of Sciences, Rehovot, Israel, *A New Model for Transport in Fractured and Heterogeneous Porous Formations*

December 2-6: Northwest Miners Association 108th Annual Meeting

December 9-10: New Disclosure Rules for Mining Companies, The Conference Board of Canada, The Delta Pinnacle, Vancouver, B.C.

December 12: **MEG** Sergei Diakov, BHP Billiton
Norilsk

2003

January 8: **MEG** tba Placer Dome
Pueblo Viejo

January 24: **MEG**

January 27 - 30: **Cordilleran Roundup 2003**
This year it's at the Westin Bayshore!

2003

February 12: **MEG** tba Kemess North

February 26: **MEG** tba Boyongan.

March 9 -12: PDAC 2003 International Convention

March 19: **MEG** tba

April 2003: KEG 2003: The 16th Annual Kamloops Exploration

April 24 - 25: Calgary Mining Forum & Alberta Geological Survey Open House

May 25 – 28: GAC-MAC-SEG Joint Annual Conference, Vancouver, B.C.
www.vancouver2003.com

SUMMER STUDENTS

Are you intending to hire students to work as junior or senior geological assistants for the upcoming summer? Whether in mineral exploration, environmental geoscience or any other "earth science" discipline, in the office or in the field, there are competent, intelligent and keen undergraduate students who are seeking experience in your area of interest. Please send your ads to all of the following departments so that they can be posted for the students to respond to.

Earth Sciences - Simon Fraser University
8888 University Drive
Burnaby, B.C. phone: (604) 291-5387
V5A 1S6 fax: (604) 291-4198

Earth & Ocean Sciences - University of British Columbia
6339 Stores Road
Vancouver, B.C. phone (604) 822-2449
V6T 1Z4 fax (604) 822-6088

Earth and Ocean Sciences - University of Victoria
P.O. Box 3055
Victoria, B.C. phone (250) 721-6120
V8W 3P6 fax (250) 721-2000

The Cordilleran Section of the GAC was established over 30 years ago in an effort to bring geologists in the Vancouver and lower mainland area together to discuss and debate topical issues. As the group evolved and more geologists settled in the lower mainland the range of events grew from small discussion groups to workshops and short courses as well as symposia.

Objectives

To advance the science of geology, especially concerning the Cordilleran region. To promote a better understanding of Cordilleran region geological issues among geoscientists and the general public.

Activities:

Workshops: From time to time the Section puts on workshops in the winter or spring – watch our newsletter for upcoming workshops. In the recent past, topics have included:

- 1 **Diamonds: Theory & Exploration**
- 2 **Cordilleran Tectonics and Mineral Deposits**
- 3 **Yukon-Tanana**
- 4 **Nechako Geology**
- 5 **Introductory Geospanish**
- 6 **Internet for Geoscientists**
- 7 **Mining the Internet**
- 8 **Quality Control Strategies In The Estimation And Classification Of Mineral Inventories**

Publications: The Section sells GAC publications relevant to Cordilleran Members at local conferences. The Section also produces its own publications, including the popular **Vancouver Geology**. Latest publications are two sets of Field Trip Guidebooks produced for the April 2000 GSA Cordilleran Section meeting held here in Vancouver: **A transect of the southern Canadian Cordillera: Vancouver to Calgary** and **Guidebook for geological field trips in southwestern British Columbia and northern Washington**. A number of exciting, new publications are in the works, including: Field Trip Guides for GAC-MAC-SEG meeting in Vancouver, May 25-28, 2003; a new book looking at Vancouver geology with a focus on its landscape and natural hazard issues; and co-published with GAC National: **Geology of the Canadian Cordillera** and **Geology Tours of Vancouver's Buildings and Monuments**.

Student Members receive discounts on our books, workshops and other activities. Grants are available to qualifying student groups for conferences, formal field trips, and other activities.

JOIN US! ~~~~ New Dues Structure for 2003 ~~~~

Mail completed form, with cheque for annual membership dues of \$10 (GST included) payable to **Cordilleran Section – GAC**, to: P.O. Box 398, Station A Bentall Centre, Vancouver B.C., Canada V6C 2N2

___ **Renewal** ___ **New member**

Name: _____ Company/Affiliation: _____

Street: _____ City: _____ Province: _____

Postal/Zip: _____ E-Mail: _____

Tel. Office: (____) _____ Home: (____) _____ FAX: (____) _____

Website: <http://www.sfu.ca/earth-sciences/gac/>



Mineralogical
Association of Canada



Geological Association of Canada
Mineralogical Association of Canada
Society of Economic Geologists

Joint Annual Meeting

Sheraton Wall Centre
Vancouver, B.C. Canada

Vancouver **2003**

***On the Edge: Earth Science at North America's
Western Margin***

May 25 - 28, 2003

***GAC-MAC-SEG
JOINT ANNUAL MEETING***

www.vancouver2003.com