



Issue 5
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EdGEO

News from the National Workshop Program

National EdGEO Office Moves to Victoria

As of April 1, 2002 an enthusiastic group of geoscientists and educators in Victoria have assumed the responsibility for the National EdGEO Office (NEO) from Fran Haidl and her Saskatchewan colleagues. The office will be located in Victoria until March 31, 2006. The new slate of officers at the helm include Eileen Van Der Flier-Keller (Chair), Jane Wynne (vice-Chair/Secretary), Pat Bright (Treasurer) and David Mate (Newsletter Editor) with Nick Massey, Sandy Dumais and Michael Jackson as members at large. This group is a good mix of Federal and Provincial geoscientists, University of Victoria faculty (in Department of Earth and Ocean Sciences and Department of Education) and local Elementary and High School teachers.

Some of the goals of this new group are to:

I) Work with the EdGEO National Committee to increase EdGEO program offerings in Canada,

particularly in regions such as the Yukon, North West Territories, Nunavut, and Newfoundland, where there have been no recent EdGEO workshops. II) Encourage the offering of EdGEO workshops to student teachers at Canadian Universities in partnership with Education Faculties.

III) Make more use of the EdGEO website to provide resources for teachers and EdGEO workshop leaders.

IV) Seek ways to support new and continuing EdGEO workshop organizers.

IV) Work with CGEN to ensure that funds are available for grants and the continued promotion and expansion of the EdGEO workshop concept.

We welcome any ideas that you may have for how we can foster the worthy goal of educating the educators in Geoscience.

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EdGEO is coordinated by the Canadian Geoscience Education Network of the Canadian Geoscience Council



Special Thanks to Fran Haidl!

A big thank you to Fran Haidl and her Saskatchewan colleagues for running the EdGEO program over the last 7 years. Through the efforts and dedication of this group, EdGEO has grown and flourished. EdGEO stands among the major programs in Canada (along with EarthNet, Geoscape, and Wat on Earth), which seek to increase earth science literacy in this country.

Some of the accomplishments achieved by this enthusiastic and hard working group include: 1) Increasing the number and distribution of EdGEO workshops. Over the last 7 years 1811 teachers have taken part in over 70 EdGEO workshops. This will greatly benefit a huge number of students who will come into contact with these teachers, 2) Development of the EdGEO website, and 3) streamlining the funding application process through the website. The application process is so efficient that the turnaround time from receipt of the funding request, through review, to "the cheque is in the mail" approval is about 3 days.

Fran's enthusiasm for earth science is truly infectious and she has been a tremendous advocate for earth science literacy. The Canadian geoscience community and countless teachers and

their students owe her a great thank you for her efforts. We wish Fran and the rest of the Regina group all the best. Thank you for making the EdGEO program what it is today!

EdGEO Website www.edgeo.org (application & report forms online, other links)

Thanks & Appreciation to: Our Sustaining Donors (\$20,000+)

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Another EdGEO Success in Nova Scotia

Jennifer Bates - Geological Survey of Canada, jbates@nrcan.gc.ca

The EdGEO workshop program remains active and vibrant in Nova Scotia. Last August, the Nova Scotia EdGEO Workshop Committee presented its eighth teachers workshop to 30 keen participants from various locations throughout the province. The Fundy Geological Museum in Parrsboro was the venue and local host. The two-day program included interactive presentations on "the basics" (rocks and minerals, fossils, dinosaurs and geological time) plus new sessions on soil, climate change, and oil and gas. A half-day field trip gave the teachers an excellent overview of the geology of the Parrsboro area. Monday evening activities included a scavenger hunt and a tour of the Museum. At the end of the workshop, teachers walked away with armloads of resources to use in their classrooms and were heard to say something about the workshop being "the best" they have attended.

Members of the Nova Scotia EdGEO Workshop Committee represent the Geological Survey of Canada (Atlantic),



the Nova Scotia Department of Natural Resources, Dalhousie University, Nova Scotia Museum of Natural History, the Atlantic Science Links Association, local and regional school boards, and the Nova Scotia Association of Science Teachers.

Funding for the 2001 workshop was provided by the National EdGEO Program, the Nova Scotia Association of Science Teachers, and the Grants and Contributions of the Geological Survey of Canada. The Geological Survey of Canada (Atlantic), the Nova Scotia Department of Natural Resources, Dalhousie University, Fundy Geological Museum, the Halifax Regional Municipality School Board and Atlantic Science Links Association generously provided in kind support.

Written and verbal feedback from the teachers indicate the Committee is providing a much needed (and fun-filled) workshop. Plans are underway for the EdGEO 2002 workshop taking place August 19-20 in Digby.

Victoria EdGEO - Plate Tectonics and Geoscape

Eileen Van der Flier-Keller - University of Victoria, fkeller@uvic.ca

Jane Wynne and David Mate - Geological Survey of Canada



Twenty teachers from Grade 3 to 10 attended a one-day EdGEO workshop in Victoria on October 19th 2001. The focus of the workshop was plate tectonics, earthquakes and volcanoes (to fit with the Grade 7, 8 and 10 BC curricula). Hands-on activities were the order of the day, ranging from small-group experiments

on magma viscosity to the entire group participating in demonstrations of passage of seismic waves and plate movements in the Pacific Northwest. As always we learned a huge amount from the participating teachers, who modified many of the experiments and contributed many new ideas for questions which could be asked of students doing the activities.

This year, to celebrate the publication of Victoria Geoscape, we added some activities and discussion on the social aspects of plate tectonics, focusing on plate tectonics and the First Nations, and plate tectonics and the media. This component of the EdGEO was well received and demonstrated the applicability of earth

science topics to social studies and language arts areas of the curriculum.

The teachers were very positive about the workshop. Some quotable quotes were: "wonderful expertise – real live passion in everyone" (we had three different presenters and three helpers); "excellent demos"; "hands-on"; "completely grounded in learning outcomes"; "the resources and handouts"; "Theory into practice. You preach hands-on, you gave hands-on. Every activity would seem to engage young (and old) students. Definitely provided a sense of 'Wonder'. Left me with the feeling that I can't wait to get back to school and try it".



Calgary EdGEO Workshops: Teachers and Scientists Working Together

Godfrey Nowlan - Geological Survey of Canada, gnowlan@nrcan.gc.ca

Bev Ross Rundle Junior High School

There have been three EdGEO Workshops held in Calgary already this year: two for Grade 7 teachers and one for Grade 3 teachers. These workshops form just part of an extensive suite of professional development opportunities for teachers provided by the Calgary Science Network's Making Connections Program. The basic premise of the Making Connections Program is that workshops are presented jointly by

This partnership, which requires realistic understanding of each others' backgrounds, strengths and limitations and a strong mutual respect, is crucial to the development and delivery of our programs for teachers.

The teacher brings to the partnership an appreciation of the nature of the job of teaching both practical and theoretical, and an understanding of the local education system and its special challenges and demands. Having delivered the prescribed curriculum in their own classroom, the teacher knows what works and what doesn't. This allows them to develop the best activities and approaches and to provide valuable feedback to enquiries from teachers attending the workshop. With this experience, the teacher will have thought through the educational value of a variety of hands-on activities and resources. Our presentations are always liberally sprinkled with activities that can be used in the classroom at different grade levels.

The scientist brings knowledge of the technical subject matter, its real-world applications and related career opportunities. These have different relative values at different school grade levels. The technical understanding can be used in concert with the teacher's pedagogical knowledge to implement the very best hands-on, discovery-based activities and to evaluate available educational resources. This is especially important in the lower grade levels where many teachers are not trained in science at

all. Knowledge of related careers is more important at higher grade levels. The scientist knows about interesting and relevant applications or implications of scientific knowledge, which are the hooks that stimulate interest in a topic. The scientist can also help teachers to access information and expertise in their communities.

What each partner brings must be equally weighed and applied to provide the most efficient and effective learning environment possible. Development of a handbook for the workshop helps to develop the relationship between scientist and teacher and provides a clear focus for conduct of the workshop. We urge those developing and delivering workshops to use partnership between the two professions to produce the best product.



scientists and teachers.

In Calgary, we believe that professional development opportunities for teachers of science at the elementary and high school level are best developed jointly by teachers and scientists. We have delivered many workshops for teachers of earth sciences, in many different formats and of widely different duration. In the development and delivery of these workshops the strong common thread of success has been that one of us is a teacher and the other a scientist.

(Contributed by Russell Tinning, Resource Specialist with the Georgia Soil and Water Conservation Commission, 117 Savannah Ave., Statesboro, GA, 30458— from the NDCS Newsletter, Vol. 25, No. 3, North Dakota Geological Survey, Winter 1998)

If the Earth Was an Apple....



You could cut it into four equal slices.

Three would represent the oceans of the world.

The fourth slice represents the land area.

If you cut the land slice in half, lengthwise, you'll have two one-eighth pieces of the apple.

One of these slices represents areas where humans can't live, such as the desert, swamp, arctic, and antarctic regions of the world.

The last slice represents land where humans can live.

Cut this last, one-eighth slice of the apple into four equal parts.

Three of them represent areas of the world where food production is not possible, including land that has been developed.

Peel the fourth part carefully.

This small piece of peeling, on one-thirty-second of the apple, represents the soil of our earth that all of us depend on for food.

www.edgeo.org

EdGEO Website

It's all here for you

How to organize a workshop
How to get in touch with us

Self-guiding forms to apply for funding
and submit final reports ONLINE

Valuable, time-saving resource links

Learn about our donors
who make it all possible

A New Geological Map of Canada for Canadians

Bob Turner, Nicky Hastings - Geological Survey of Canada (bturner@nrcan.gc.ca)

John Clague - Simon Fraser University



Geoscape Canada – a map of Canada's earth materials is a new geological map of Canada produced by the Geological Survey of Canada (GSC) for a broad audience of general public, educators, environmental professionals, and geoscientists. The map presents a view of the materials that make up the surface of the Canadian landmass – from sand and glacial till to granite and volcanic rocks. Fifty photographs illustrate these materials and the landscapes they produce. The map is a large format (152 cm

X 91 cm) wall poster. The description of each earth material emphasizes material properties, associated resources and hazards, and associated landscapes. The fourteen materials are divided into broad categories of ice, modern sediments, Ice Age sediments, and rock. The map is based on GSC bedrock and surficial geological maps of Canada. The map will be available as a poster through GSC sales offices and on the Internet at <http://geoscape.nrcan.gc.ca> in autumn 2002.

Earth Science Enrichment Workshop for Teachers

Randle Robertson - Yoho-Burgess Shale Foundation, burgshal@rockies.net

An earth science workshop, sponsored by EdGEO, was conducted from August 22nd to 24th in Field, British Columbia, by the Yoho-Burgess Shale Foundation. This workshop was offered to local high school teachers, and focused on increasing their knowledge of the local geology, while providing them with the tools to enhance their existing science curricula. The success of the course was in part due to the fact that teachers were involved in the early stages of planning. Teachers stated that, in addition to increasing their general geological knowledge, they needed concrete tools to incorporate more earth science examples into their classrooms. Therefore, the program was designed with a flexible, modular format; still providing basic knowledge enhancement, but also offering science-specific sessions to focus on the links to the existing science curricula.

Other Geoscape Posters Coming Soon...

GEOSCAPE WHITEHORSE

GEOSCAPE SOUTHERN SASKATCHEWAN