



www.iagc.ca

## International Association of Geochemistry

### 2007 IAGC AWARDS

In June this year, IAGC proudly announced the recipients of its inaugural set of awards. The official announcement took place during the IAGC's 40<sup>th</sup> Anniversary Celebration on Saturday, August 18, and the awards were presented during the Goldschmidt Conference Awards Ceremony, in Cologne, Germany.

The IAGC **Vernadsky Medal** was awarded to Prof. Fred Mackenzie of the University of Hawai'i for a distinguished record of scientific accomplishment in geochemistry over the course of his career. See *People in the News* on page 302.

The IAGC **Ebelmen Award** recognizes a geochemist of particular merit and outstanding promise who is less than 35 years old. This year, it was shared by Dana Royer of Wesleyan University and Seifu Kebede of Addis Ababa University.



**Seifu Kebede** holds a BSc and an MSc from Addis Ababa University (Ethiopia) and a PhD from the University of Avignon (France). He is an assistant professor of hydrogeology in the Department of Earth Sciences at Addis Ababa University. Previously he worked as a junior professional officer at the International Atomic Energy Agency. His current research interests relate to the application of environmental isotopes and geochemistry in

groundwater tracing in tectonically active mountain-bounded regions, the application of isotopes in the study of evaporation in bodies of open water, and tracing the origin of modern and paleo-African monsoons. Dr. Kebede is a member of the Ethiopian Hydrogeological Society and the Ethiopian Geological and Mineral Engineering Society.



**Dana Royer** earned a BA from the University of Pennsylvania (USA) and a PhD from Yale University (USA). He is currently an assistant professor in the Department of Earth and Environmental Sciences at Wesleyan University (USA). Dr. Royer's current research interests are the development and application of paleobotanical proxies for paleoclimatological and paleoecological variables and the quantification of the relationship between CO<sub>2</sub> and temperature through time.

The **Hitchon Award** for the most significant paper published in the IAGC's journal, *Applied Geochemistry*, during 2006–2007 was awarded to Keara B. Moore and B. Ekwurzel of the University of Arizona and Bradley K. Esser, G. Bryant Hudson, and Jean E. Moran of Lawrence Livermore Laboratory for their paper "Sources of Groundwater Nitrate Revealed Using Residence Time and Isotope Methods" (*Applied Geochemistry* 21: 1016-1029).

**Certificates of Recognition** for outstanding scientific accomplishment in a particular area of geochemistry, for excellence in teaching or public service, and/or to an IAGC member for meritorious service to the Association or the international scientific community were awarded to U. Aswathanarayana of the Mahadevan International Centre for Water

Resources Management (India), **Mike Edmunds** of Oxford University (UK), **John Gurney** of the University of Capetown (South Africa), **Jochen Hoefs** of the University of Göttingen (Germany), **Yousif Kharaka** of the U.S. Geological Survey (USA), **Herbert Palme** of the University of Köln (Germany), and **Zell Peterman** of the U.S. Geological Survey (USA).

More details about the above awards and recipients can be found on the website [www.iagc.ca](http://www.iagc.ca) or in Newsletter #47.

### IUGS/IAGC TASK GROUP ON GLOBAL GEOCHEMICAL BASELINES

The IUGS/IAGC Task Group on Global Geochemical Baselines has the long-term goal of establishing a global geochemical database to document the abundance and spatial distribution of chemical elements in the Earth's near-surface environment. A very important contribution to this goal is being initiated in 2007 by the Geological Survey of Canada, the U.S. Geological Survey, and the Mexican Geological Survey (Servicio Geológico Mexicano). These three organizations are collaborating to carry out a soil geochemical survey of the North American continent, an area of more than 21 million square kilometers.

A total of 13,215 sites have been identified throughout North America by a Generalized Random Tessellation Stratified Design at a density of one site per approximately 1600 km<sup>2</sup>. A combination of depth-based and horizon-based sampling are the "core" protocols to be carried out at each site. A sample of the top 5 cm of soil, regardless of horizon, will be collected, along with a composite of the A horizon and a composite of the C horizon. In addition, a separate sample of soil from a depth of 0–5 cm will be collected for the determination of *Bacillus anthracis* (anthrax). Analytical protocols include both a near-total four-acid extraction and an aqua regia extraction, each followed by a combination of ICP–MS and ICP–AES for the determination of over 40 elements.

Each country may choose to expand the "core" sampling and analytical protocols according to the interests of stakeholders. For example, in Canada, the protocols

for the Maritimes include collection of soil gas radon and radiometric data through the Radiation Protection Bureau of Health Canada, the determination of the bioaccessible amounts of potentially toxic elements through the Healthy Environments and Consumer Safety Branch of Health Canada, and the analysis of samples for polycyclic aromatic hydrocarbons (PAHs) through Environment Canada.

This multi-year project will provide the first-ever continental-scale map of the geochemistry of North American soils.

#### David B. Smith

Co-Leader, IUGS/IAGC Task Group on Global Geochemical Baselines  
U.S. Geological Survey  
Denver, Colorado

#### Andy Rencz

Program Manager,  
Environment and Health  
Geological Survey of Canada  
Ottawa, Ontario



Representatives of several agencies cooperating in the IAGC's Global Geochemical Baselines Working Group held a joint field meeting near Fredericton, New Brunswick. The agencies represented in the photo are the Geological Survey of Canada, the New Brunswick Department of Natural Resources, Environment Canada, Agriculture and Agri-Food Canada, and the U.S. Geological Survey.