

Atlanta Geological Society Newsletter

**Next meeting of the Atlanta Geological Society is
April 27, 2010
Fernbank Museum of Natural History (Clifton Road)
Social begins at 6:30 pm – Meeting begins at 7:00 pm**

April 2010

What is going on?

“Volcanoes are notoriously irregular in their behavior. If there is any rule about them it is: There is no rule.”

Dr. Pall Einarsson,
Professor of Geophysics, University of Iceland
in the Wall Street Journal, April 16, 2010

I usually report a bit on interesting or dramatic geologic news story in each month's newsletter. Here recently there seems to be an abundance of plate tectonics news between the dramatic earthquakes and the recent volcano eruption in Iceland. I believe there is a human tendency to discern a pattern where one may not truly exist. Did the stress relief from the big Indonesian earthquake set up the big Chinese earthquake? Did the Haitian earthquake set-up the Chilean earthquake? On the really big picture, yes, they are all related somehow but I believe they are not a direct result of each other.

Two ideas are born out. First, because of all the media and internet coverage, we all know more about activities far, far from our home. Within a day, there is someone, live at the scene, reporting tragic details using a satellite phone.

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The April Meeting

Join us Tuesday, April 27, 2010 at the Fernbank Museum of Natural History, 760 Clifton Road NE, Atlanta GA. The pre meeting social starts at 6:30 pm and the meeting will start at 7 p.m. The speaker for the evening will be Dr. Rob McDowell, the Environmental Policy Program Director of UGA's Carl Vinson Institute of Government.

The abstract for the presentation is: The current hostile media and political landscape makes communicating geoscience to politicians more challenging than ever. Often, the topic is contrary to politicians' social, ideological and religious views. Worse, scientists are usually unprepared to communicate science to non-scientists, and end up not being heard. The key is to meet the politicians where they are, frame the information in a way that resonates with them, make sure to develop enduring relationships and then leave.

Look elsewhere in the newsletter for more information about the Environmental Policy Program and Dr. McDowell.

What is going on? (cont.)

Secondly, we see how we are all interconnected by these events. The volcanic ash plume has wrecked havoc on international air travel. Kenyan farmers can not ship their produce to European markets because of the flight cancellations. British bands can not make it to the Coachella Arts and Music Festival in California. Ironically, an Icelandic volcano expert is stuck in Paris because he can't get a flight home. Can you imagine being stuck in the airport trying to get home from spring break, waiting on a volcano to quit erupting so you can get your kids back to school?

Maybe there is some corollary to the Observer Effect. Certainly, our knowing about an earthquake won't change the event itself. Although Depak Chopra and some Iranian mullas believe they know what causes earthquakes. Google it and find out. As I write this on a beautiful Southern spring afternoon, how can things be going wrong? I think these events were going on all the time and we should not read too much into it. The world is probably not going to end with the next eruption with live coverage on CNN. Maybe ignorance was bliss. In the meantime, it makes for interesting geological news.

Ben Bentkowski, Newsletter Editor

Web cam for the Eyjafjallajokull volcano: <http://eldgos.mila.is/eyjafjallajokull-fra-thorolfsfelli/>

Dr. Rob McDowell Biography

Rob McDowell is the director of the Vinson Institute's Environmental Policy Program. Before coming to the Institute, he was assistant branch chief in the Georgia Environmental Protection Division Watershed Protection Branch, working principally on implementation of the Georgia State-wide Water Management Plan.

McDowell also developed the Flint River Basin Water Development and Conservation Plan, the first of its kind in Georgia, which focused on agricultural water use and its impact on streamflows in southwest Georgia. He is a registered Professional Geologist and a member of the Geology and Public Policy Committee of the Geological Society of America.

McDowell has a Ph.D. in geology from the University of Kentucky, an M.S. in geology from West Virginia University, and a B.S. in geosciences from Penn State University. He taught geology at Georgia State University and developed continuing education courses in geology for the Evening at Emory Continuing Education Program. His primary interests are geology and society and the role of science in the development of public policy.

Environmental Policy Program Carl Vinson Institute of Government University of Georgia

Contact: Rob McDowell, mcdowell@cviog.uga.edu; 706.542.6271

The Institute's Environmental Policy Program conducts policy research on environmental and natural resource issues facing Georgia and provides technical support and training/educational programs for Georgia government officials.

[Briefs for State Legislative Committees](#)

Current program highlights:

- Statewide water management planning
 - [Comprehensive Statewide Water Management Plan](#)
 - [Joint Comprehensive Water Plan Study Committee and Water Plan Advisory Committee](#)
- [Georgia Land Conservation Partnership Plan](#)
- [Multistate Regional Water Planning](#)
- [Open Space Analysis](#)
- [Wildland-Urban Interface Assessment](#)

The research efforts of the Environmental Policy Program focus on two types of studies:

- [Public policy research reports](#) on environmental and natural resource issues facing Georgia
- [Documents for local government](#) officials providing guidance relating to specific environmental issues, programs, and/or requirements

Technical Assistance and Outreach

The Environmental Policy Program has worked with governmental officials in Georgia and elsewhere to address environmental issues and concerns in effective ways. In Georgia, the program works with the General Assembly, state agencies, [Association County Commissioners of Georgia](#) (ACCG), [Georgia Municipal Association](#) (GMA), and stakeholder groups on environmental policy matters.

Training and Education

Faculty and professional staff of the Environmental Policy Program have developed and offer a training program for city and county officials on environmental management. The course, part of the training program offered by ACCG and GMA in cooperation with the Institute, is designed to provide local government officials with an understanding of the environmental challenges they face, the legal requirements set for federal and state environmental laws, and options they have for addressing environmental concerns within their communities.

<http://www.cviog.uga.edu/services/policy/environmental/>

AGS Members...The Professional Registration Committee Needs YOU...

If you are an AGS member and would like to contribute to the Professional Registration Committee by leading a lecture on one of the subjects listed below, then please contact me either by e-mail or at the monthly AGS meetings. The lecture should be for one hour followed by a Q&A session. We need different speakers for each workshop. Your volunteering to teach on one of these subjects is essential to the success of the Professional Registration Committee – we need more widespread participation by the AGS membership. Speakers can be compensated for expenses and will receive certificates to acknowledge their participation.

The following content domains are covered in the Georgia Professional Geologist exams:

- | | |
|---|---|
| A. General Geology | B. Mineralogy, Petrology, & Petrography |
| C. Sedimentology, Stratigraphy, & Paleontology | D. Economic Geology & Energy Resources |
| E. Structure, Tectonics, & Seismology | F. Hydrology & Environmental Geochemistry |
| G. Engineering Geology | |
| H. Quaternary Geology, Geomorphology, & Surficial Processes | |

We do not "teach the test" our aim is to review fundamental concepts of the earth sciences and acquaint candidates with industry specific information not easily obtainable from the literature. Please inform anyone who might be interested in becoming a professional geologist of our workshop. Please consider joining us even if you are not a P.G. candidate. The workshops are interesting and informative.

Ken Simonton, P.G., Chair
Professional Registration Committee

www.atlantageologicalsociety.org



EARTH DAY IS APRIL 22

This is the 40th anniversary

of the event.

The 'Official' Earth Day headquarters may be self proclaimed but it is a good starting point to see the wide range of activities are available. <http://www.earthday.org/events>

Locally, the Tellus Science Center is hosting Earth and Sky 2010

April 22 - Earth Day Family Science Night

April 23 - Astronomy Day with stargazing with the Tellus Observatory and other telescopes on the grounds

April 24 - Earth and Sky celebrations wrap up with solar observations and other activities inside the museum.

AGS PROFESSIONAL GEOLOGIST WORKSHOP April 2010

The April 2010 Atlanta Geological Society PG Candidate Workshop will feature Benjamin Black, P.G. giving a presentation on engineering geology. The class will cover: Introduction Soil Mechanics and Strength Soil Testing (Laboratory and Field Methods), Rock Mechanics and Rock Mass Strength, Rock Testing (Laboratory and Field Methods), Geologic Hazards (Slope Stability, Earthquakes, etc.), Engineering Geological Mapping, Site Investigation, and Miscellaneous Topics (deep foundations, etc.) – Time Permitting.

The class will be held the last Saturday of the month, April 24th, **from 12:00 pm to 2:00 pm**, please note the time, this is **TWO** hours later than the classes are normally held. The class will be at the Fernbank Science Center, located at 156 Heaton Park Drive, N.E. Atlanta, GA 30307, phone: 678-874-7102. The Science Center is about a mile north of the Fernbank Science Museum off Ponce DeLeon. The meeting will be held in the “Bird Room” in the Annex building behind the Science Center. For more information about the Science Center, go to <http://fsc.fernbank.edu/>.

Mr. Black works as geological engineer for Arcadis US, Inc. and has thirteen years of experience in hydrogeological analysis and geotechnical assessment and analysis. He has a B.S. in Geology from Eastern Michigan University, an M.S. in Geological Engineering from the University of Idaho, and a Certificate in Applied Geotechnics from the University of Idaho. Mr. Black is a registered Professional Geologist in Georgia, South Carolina, North Carolina, and Mississippi (via ASBOG and reciprocity). He is experienced in a wide variety of geotechnical subsurface investigation methods, including geophysical surveys, geotechnical soil borings, and coring of various types of soft and hard rock. In particular, Mr. Black is experienced with the assessment and analysis of rock mass strength with application to slope stability and engineered structures.

Ben is experienced in shallow and deep foundation design including piles and drilled shafts, slope stability analysis and stabilization techniques, seepage analysis, excavation design and materials handling, tunnel design and construction, surveying, and ground reinforcing techniques. He has conducted slope stability analysis for open pit mines and transportation corridors. He was responsible for processing and interpretation of rock mass properties, joint frequencies, selection of design sections, and other pertinent data. He developed a stability model and performed all calculations necessary to determine factor of safety and recommendations for slope stabilization for both planar and wedge failure modes.

Most recently, Mr. Black has been working on U.S. Army Corps of Engineers projects in New Orleans, Louisiana and Miami, Florida. These projects include levee and deep foundation assessment and design in soft sediments and statistical analysis based on load and resistance factor design.

Two Professional Development Hours will be offered and everyone is invited to attend. ---Please forward this announcement to anyone you know that might be interested---

See you there!

Ken Simonton, P.G.

AGS Career Development Committee

NOTE: Different TIME 12:00 to 2:00pm

Fernbank Museum of Natural History
Upcoming Public Programs and Events
 (All programs require reservations, including free programs)

**Fernbank
 Museum of Natural History**

767 Clifton Rd, NE Atlanta, GA
 404-929-6400

For tickets and details on exhibits, films, and events, please visit our website at www.fernbankmuseum.org Follow us on facebook or twitter for the latest news and updates!

On Exhibit:

- *Entrance Plaza, featuring a family of Lophorhynchon dinosaurs*
- **Nature Unleashed - Closing May 2**

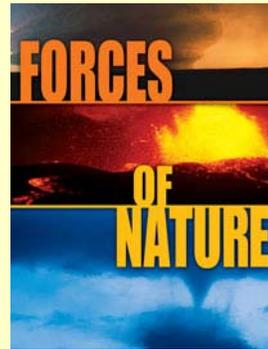
**Now Showing in IMAX:
 (Check our website for special screenings)**

- *Martinis and IMAX: Friday evenings, 5:30 p.m. – 10 p.m. Arabia and Ride around the World.*

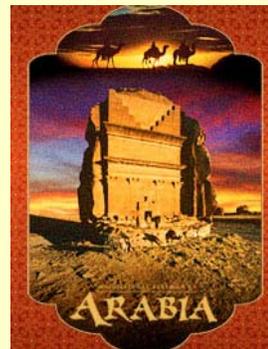
**Now Showing in the Fernbank
 IMAX movie theater:**

(Check our website for special screenings)

• **Daytime Schedule:**



**Final
 Weeks for
 Forces of
 Nature**
 (through
 May 27)



Arabia
 through
 July 29

- **Opening May 28: Bugs: A Rainforest Adventure**

Martinis & IMAX® is presented at the Fernbank Museum of Natural History every Friday evening, January through November; from 5:30 p.m. to 10 p.m. Enjoy no cover charge when you visit us between 5:30 p.m. to 6:30 p.m. This event includes a wine bar, where featured wines can be purchased by the glass and by the bottle. Dinner is also served in the Dining Room, where smaller parties can order chef-prepared dishes-from gourmet pizzas to prime entrées-and dine together in a more intimate and sophisticated setting. Desserts and coffee are available as well.

As always, a full cash bar is offered in the Great Hall where patrons can enjoy a lively atmosphere and musical performances by some of Atlanta's best jazz artists. Bands perform live from 6:30 p.m. to 10 p.m. IMAX® film tickets are \$10. For those who wish to enjoy the atmosphere of Martinis & IMAX® without attending a film presentation, there is a \$5 cover charge after 6:30 p.m. The cover charge is waived for members and patrons who purchase an IMAX® ticket. To purchase tickets in advance, call 404.929.6400.

Fernbank Museum of Natural History

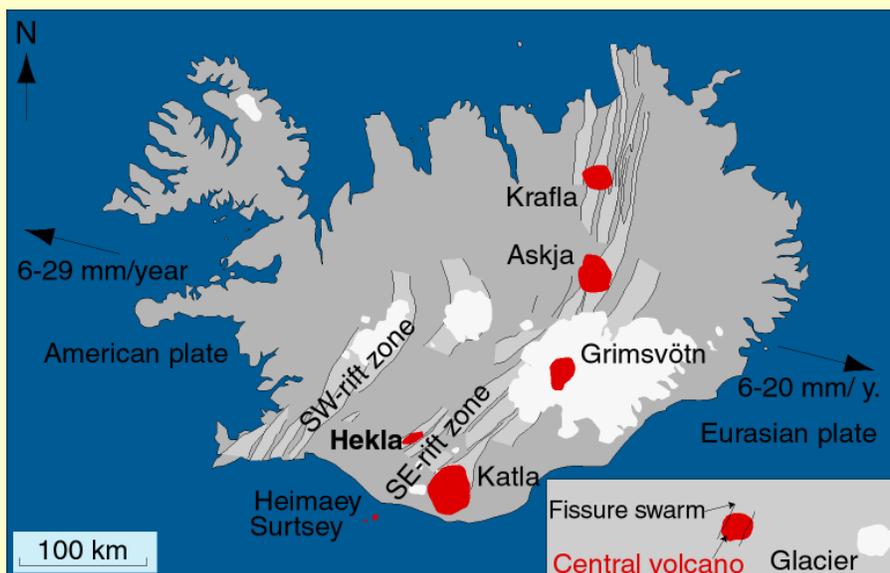
767 Clifton Rd, NE Atlanta, GA 404-929-6400

Special Exhibits On View:

- **Last Chance! Closing on May 2 in the Special Exhibition Hall**
Nature Unleashed: Inside Natural Disasters Discover the science behind the forces that make the Earth shake, rattle and roll in Fernbank's newest special exhibition. Learn how — on a planet fueled by heat — tornadoes, hurricanes, volcanoes and earthquakes are simply signs that the engine is running.
- **Opening on May 28 in the Special Exhibition Hall:**
Geckos: From Tails to Toepads Explore the amazing world of geckos in this collection of more than 15 live gecko species and accompanying interactives and media presentations.
- **Opening on May 22 in the Curators' Corner: *DeSoto's Footsteps***

Upcoming Public Programs:

- **Archaeology Day.** Saturday, May 1, 10 a.m. – 2 p.m. Included with Museum admission; free for members.
- **Storytelling.** Saturday, May 8 at Noon. Included with Museum admission; free for members.
- **Geckos Family Day.** Sunday, June 6, 1 p.m. – 4 p.m. Included with Museum admission; free for members.





The Eyjafjallajökull volcano in eruption with lightning.
<http://www.msnbc.msn.com/id/36645958?GT1=43001>

SITUATION WANTED

Guy Mazaiwana is looking for permanent, temporary, project or contract based employment or weekend work. He has recently obtained Building Performance certification for energy audits and green design. Quite versatile, goal oriented and has a 'get the job done' mentality. Looking for a position as a mid-senior level Hydrogeologist/Environmental Engineer. Contact : guymazaiwana@yahoo.com or 404 539 0518.

AGS Officers

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www.atlantageologicalsociety.org

AGS 2010 Meeting Dates

Listed below are the planned meeting dates for 2009. Please mark your calendar and make plans to attend.

April 27 – Dr. Rob McDowell UGA's Environmental Policy Program

May 25 – To Be Announced

June 30 – Annual Social – BBQ and IMAX

July – No meeting

Society of Mining, Metallurgy and Exploration *Georgia Section Meeting Notice*

A meeting of SME Georgia Section will be held on May 20, 2010 in the University Banquet Room (Presidential Dining Room) at Georgia College & State University in Milledgeville, Georgia.

Meeting Agenda

| | |
|--------------------|---|
| 6:00 PM - 7:00 PM | Cocktails – <i>Sponsored by Hodges, Harbin, Newberry, & Tribble, Inc.</i> |
| 7:00 PM - 7:30 PM | Dinner Served – Tenderloin of Beef with Mushroom Sherry Sauce, Fresh House Salad with Choice of Dressing, Fresh Cut Green Beans, Rosemary Potatoes, Apple Pie, Fresh Baked Rolls, Iced Tea, Iced Water, and Coffee. |
| 7:30 PM. – 7:45 PM | Business Meeting – Treasurer’s Report, GEM Committee Report |
| 7:45 PM. – 7:50 PM | Speaker Introduction – Len Etheridge, Imerys and GMA Environmental Committee |
| 7:50 PM – 8:50 pm | State Water Plan Assessments of Water Quantity and Quality |

JIM KENNEDY, STATE GEOLOGIST, GEORGIA ENVIRONMENTAL PROTECTION
DIVISION, ATLANTA, GEORGIA

Abstract: This presentation will discuss:

- Establishment of unimpaired surface water flows
- Flow regime for assessment of surface water availability
- Examples of gaps between flow regime and stream flows with consumptive use
- Dissolved oxygen (DO) and nutrient parameters for surface water quality assessments
- Examples of modeling results of surface water quality under current conditions
- Prioritization of aquifers for determination of sustainable yields
- Sustainable yield metrics
- Sustainable yields of prioritized aquifer

Location: The Presidential Dining Room is on the upper floor of the Maxwell Student Union located at corner of N. Clarke Street and W. Hancock Street on the campus of Georgia College & State University. The entrance is on the Hancock St. side of the building. See <http://www.gcsu.edu/about/campusmap/> for a GC&SU campus map.

From Atlanta Take 1-20 East to Exit 114 (Madison). Turn right onto Highway 441 South. Follow Highway 441 South to Milledgeville (about 45 miles). Entering Milledgeville, continue straight so that you follow the business section of Hwy. 441 to Montgomery Street. Turn left. Drive one block and turn right onto Clark Street. Continue to the 1st stop light which is Hancock Street. The Maxwell Student Union is on the left.

Note: The cost for both members and guests is \$30 per person. The cost for Students is \$20. Those interested in attending please mail or fax, (478) 552-4105, their registration to Tom Hilderbrand (tom.hilderbrand@thielekaolin.com; 478-552-3951, ext. 1237). Make checks payable to **SME Georgia Section**. Complete and return this form and payment to: SME Georgia Section, PO Box 1056, Sandersville, GA 31082 no later than **May 17, 2010**.

Name(s) of Attendees:

Total Number _____

Total Amount _____

Join the Atlanta Geological Society

Membership Application/Information Update Form

Annual membership dues for the Atlanta Geological Society are \$25 for professional membership, **\$5 for students (new reduced rate)**, and \$100 for corporate sponsorship (which includes up to 4 professional memberships). For further details, contact the AGS Treasurer:

Stacy Durden
 Phone: 770-617-1146
 Email: Stacy.Durden@gmail.com

Make checks payable to the "Atlanta Geological Society" and remit with the completed form to:

Atlanta Geological Society
 Stacy Durden, Treasurer
 2534 Centennial Commons View
 Acworth, GA 30102

Name: _____

Organization: _____

Address: _____

Mailing Address: _____

Phone: (Work) _____ (Home) _____ (Cell) _____

Fax: _____

Email 1: _____

Email 2: _____

Ready to Serve the Society?

Remember that although we have officers and various standing committees, it is ultimately the membership that keeps the Atlanta Geological Society active and growing. We have a world of experience within our membership. Please consider volunteering. Your Atlanta Geological Society needs you.