



Atlanta Geological Society Newsletter

Next meeting of the Atlanta Geological Society is
October 27, 2009

Fernbank Museum of Natural History (Clifton Road)
Social begins at 6:30 pm – Meeting begins at 7:00 pm

October 2009



Eagle Instruments is a nationally awarded certified women-owned business that rents, manages and distributes equipment and supplies used for monitoring and detection of hazards found in water, wastewater, air and soil along with safety and emergency response instrumentation, equipment, and supplies. Eagle Instruments was honored by the United States Small Business Association with the Administrator's Award for Excellence which was awarded at Eagle Instruments' corporate headquarters in Norcross, Georgia in April of 2007. Eagle Instruments now has the honor of adding the EPA Administrator's Award for Outstanding Accomplishment by a Woman-Owned Small Business.

<http://www.eagleinstruments.com/>

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Norcross, Georgia 30093 770.935.4124

info@eagleinstruments.com

The October Meeting:

Mark Lassiter, P.G., is President of AE Drilling Services of Greenville, SC, and has been contracting geotechnical, environmental, water supply, geothermal & mineral exploration drilling projects throughout the U.S. since the 1970's. He has a B.S. in geology from Emory University. He is also an avid mountaineer, cave explorer, and adventurer, & a member of the National Speleological Society, the Southeastern Cave Conservancy, and the American Alpine Club.

He will present a slide program chronicling 30 years of climbing and caving expeditions to destinations in the U.S., Canada, Alaska, Mexico, South America, New Zealand, and Europe. His ascents include the Grand Teton, Mt Rainier, Mt McKinley, the Matterhorn, Mt Aspiring, Chimborazo, El Pico de Orizaba, Bugaboo Spire, Devils Tower, Castleton Tower, and a host of others. He has been active in deep cave exploration in the U.S & Mexico for over 30 years, and most recently led the Rich Mountain Blowhole Cave Project in the Great Smoky Mountains National Park, a five year exploration and survey project resulting in one of the deepest and most difficult caves in the eastern U.S. He is also the caretaker of the Confederate Memorial carving on Stone Mountain, Georgia, and will discuss the recent rock bolting work completed there.

Editor's Prerogative

I was out of town for a while this month and in my backlog of emails there was an announcement about Earth Science Week being October 11-17. Darn it, I just missed it. More to the point, I was embarrassed to say that I did not even know it was going on. Looking back at that week, I did do several earth science activities. I spent some time picking the clay out of the quartz samples I collected in Arkansas. I did go the National Weather Service Headquarters and the Nobel Museum of Natural History on campus at the University of Oklahoma. But it was all for me and my family on vacation and completely unrelated to the national Earth Science Week campaign.

As listed on www.earthsciweek.org the objectives of Earth Science Week are

- To engage students in discovering the Earth sciences.
- To remind people that Earth science is all around us.
- To encourage Earth stewardship through understanding.
- To motivate geoscientists to share their knowledge and enthusiasm about the Earth.

To me, these sound like honorable and laudable objectives. These are objectives that I could support both passively and actively, if I just knew what to do. Granted, some of the material is directed towards teachers and students but I was thinking more about the fourth objective - motivate geoscientists to share their knowledge and enthusiasm about the Earth.

I propose that we in the Atlanta Geological Society plan to do something for Earth Science Week next year (October 10-16, 2010, by the way). I would like to start a discussion within the members about what we could do. Maybe we could interact with our local schools. Maybe we could hold a group geology merit badge session. Maybe we could hold a field trip and each of us bring along a non-geologist. Maybe ...you could help me fill in the blank.

In this time of record floods, droughts, the Statewide Water Plan, and changing climate, the need for increasing the public's awareness of earth science has never been greater. I know we all have pressures that pull us in many directions. But, this is a year away and I think being involved in Earth Science Week is something that we as an organization can get behind. I welcome your comments and participation.

Ben Bentkowski
Newsletter Editor

www.atlantageologicalsociety.org

p.s. two paleontology stories this month!

BB

Atlanta Geological Society Field Trip

Title: Discontinuities in Piedmont Bedrock and Their Implications for Water Supply and Contaminant Migration

Location: Lawrenceville, Georgia

Date and Time: October 31, 2009, 9:30 a.m.

Leaders: Tom Crawford, Dr. Randy Kath, Lester Williams and Ben Bentkowski

In the last 15 years the USGS has, in cooperation with the City of Lawrenceville, performed detailed geologic mapping in and around Lawrenceville. This trip will cover both bedrock and saprolite outcrops as well as some of the locations where successful water supply production wells have been drilled. The varieties of discontinuities are key to understanding what makes a good water supply well in the Lawrenceville area. Conversely, these same discontinuities are critical to understanding contaminant transport in the same setting. There will be a handout and a CD which is a compilation of many of the USGS and other papers from the years of work in this area.

Meeting Location is behind the Los Arcos Restaurant at 860 Duluth Highway, Lawrenceville. From I-85 take 316 to Duluth Hwy/Ga Hwy 120 and turn left. Turn left at either of the next two lights into the shopping center on your left. It actually is an odd collection of strip malls and the restaurant/outcrop is all the way in the back on the right, butting up to Hwy 316. There is a shopping center bounded by Hwy 316, Duluth Hwy and Lawrenceville-Suwanee Road. There is plenty of parking at this first stop so we can combine up for carpooling. Parking is not as generous at the other stops but they are all within 4 miles of the first stop. It is anticipated that the trip will be over in the early afternoon and a lunch location is contemplated for immediately afterwards.

Detailed driving directions are included elsewhere in this newsletter will be posted on our website, www.atlantageologicalsociety.org, and I'll have copies at the first stop. BB

PLEASE NOTE:

I received a request for the use of a petrographic microscope. If you can help out Cliff Leonard, please give him a call at (404)245-0563. He should be at the meeting on Tuesday.

Please note the corrected address for our treasurer, Ken Bechley. I may not have changed his address in all the necessary places in the last newsletter. Thanks, BB

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

"Unique" dinosaur footprints discovered in France

Tue Oct 6, 2009 2:23pm EDT <http://www.reuters.com/article/lifestyleMolt/idUSTRE59537G20091006>

LYON (Reuters Life!) - A set of dinosaur footprints uncovered in eastern France and dating from 150 million years ago has been authenticated by scientists as a unique discovery. The well-preserved footprints, between 1.5 and two meters in diameter, were discovered in Plagne in the French Jura by a team from Claude Bernard university in Lyon, eastern France. "It's an exceptional discovery and unique in the world by virtue of the size of the prints, as well as by the length of the trail," Pierre Hantzpergue, geology professor at Lyon university, told Reuters on Tuesday. "The sauropods' trail was unearthed for 150 meters, but we think we can follow it along several hundred meters," he added.



The discovery was made in April by members of an amateur science society specializing in geology and paleontology. The finding was authenticated by scientists at France's National Center for Scientific Research and Lyon University.

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

On Exhibit: [Gold](#)

On view through January 3, 2010

[Georgia's Heart of Gold](#)

On view through January 3, 2010

[My Favorite Things: Objects from Fernbank's Permanent Collections](#)

On view through February 1, 2010

Upcoming Public Programs:

- **Scout Day.** Saturday, November 14, 10 a.m. – 2 p.m. Special discounts for girls and boys in uniform.
- **Daily and Friday nights:** *Wild Safari* and *Van Gogh*
- **Martinis and IMAX:** Friday evenings, 5:30 p.m. – 10 p.m. Special screenings in October and November at 10 p.m. Special theme nights include Fright Night, BBQ& Blues and Solid Gold Night.

Opens October 2, 2009 in the Fernbank IMAX movie theater:

(Check our website for special screenings)

Van Gogh: Brush With Genius

Follow in Van Gogh's footsteps, traveling from the Netherlands to Auvers-sur-Oise and passing through Arles, Saint-Rémy and Paris, during the short 9-year period of the artist's career during which he created more than 900 paintings. From the dazzling yellow of the artist's famous cornfields, to the deep blue of his famous night sky, audiences will discover the source of some of the most important works in art history.

Wild Safari

Take your family on the adventure of a lifetime. *Wild Safari* puts you in the passenger seat of an open vehicle South African safari, on a quest for the continent's "Big Five"—the elephant, the Cape buffalo, the rhino, the leopard and the lion. Stunning IMAX® cinematography immerses you in the action along this 3,000 mile journey from the lush grasslands of the Southern Cape to the arid desert of the Kalahari. Family travel has never been this exciting!

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.

AGS Treasurer Report – September 2009

Membership Dues Payment Status:

	Professional	Student	Corporate	Complimentary
2008	42	5	2	0
2009	69	8	17	
Delinquent*	62	-	-	0

*Members >2 years delinquent.

Finances:

- **Account Balance as of May 31, 2009 - \$3,050.48**
- Contact the Treasurer if you wish to receive a copy of the 2008 financial summary.

Ken Bechely, Treasurer

ken.bechely@aecom.com

Phone D 404.965.9624

ANNOUNCEMENTS FROM THE TREASURER

PayPal is coming to AGS !!!

Now that the new web site is up and running, and our electronic banking account is established, we will soon have a PayPal Account for dues payments. Please watch the AGS Web Site for the link to PayPal to simplify your dues payments.

2009 Membership Dues

AGS operates on a calendar year, and your 2009 dues were due in January 2009. The AGS Treasurer is accepting 2009 payments now. If you cannot attend a meeting then please consider mailing your dues to the AGS Treasurer along with the completed last page of this newsletter. Also, *please make sure that we have your most current e-mail address.*

Membership Mailing List to be Purged

In April 2009 the E-Mail will be purged of delinquent members that are > 2 years delinquent on membership dues. Please check your membership status so you won't be dropped from the meeting reminders and newsletter distribution. Once you are dropped you'll realize that there is a void in your life, as you'll suddenly remember that you aren't getting the AGS meeting announcements and the monthly newsletter alerts. Please contact the AGS Treasurer to avoid such an interruption in your routine.

Please contact Ken Bechely if you are unsure of your membership status. If you know of a member that no longer is receiving the newsletter notification, have them contact the Treasurer.

Ken Bechely

AGS Committees

AGS Officers

President: Nils Thompson
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 Phone (678) 594-9893, Ext. 202

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 Phone (404) 657-8642

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AGS 2009 Meeting Dates

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

October 27 - Mark Lassiter, Climbing and Caving Expeditions

November 17 – Annual Poster Session
NOTE Different Meeting Date due to Thanksgiving!

NEWS STORIES

Bye Bye Birdie: Famed Fossil Loses Avian Perch Paleontologists Determine the 150-Million-Year-Old Archaeopteryx Might Not Have Been Ancestor to Today's Finches and Doves

From the Wall Street Journal Science Journal by Robert Lee Hotz October 23, 2009

<http://online.wsj.com/article/SB125624463802402117.html>

"The feathered creature called archaeopteryx, easily the world's most famous fossil remains, had been considered the first bird since Charles Darwin's day. When researchers put its celebrity bones under the microscope recently, though, they discovered that this icon of evolution might not have been a bird at all.

When the fossils of Archaeopteryx were found in 1861, it helped prove Charles Darwin's new theory of evolution. The creature that had both bird-like and dinosaur-like features has long been thought of as the archetypal bird. But a new study shows Archeopteryx might not have been a bird at all.

An examination of its bone cells revealed for the first time that the 150-million-year-old creature had the slow growth rate of a dinosaur, not a bird, an international research team reported this month. Comparing it with other early fossils, the researchers concluded that the telltale physiology of modern birds likely didn't emerge until 20 million years or so after archaeopteryx flapped its broad wings across primordial lagoons...

...Newly discovered fossils have prompted scientists to revamp their assumptions about archaeopteryx's distinguishing features over the last decade. A cornucopia of fossil finds in China demonstrated that feathers coated many dinosaur species, not just birds. Other surprises still may be concealed in trays of unexamined museum specimens. The first and most complete fossil of archaeopteryx, found in 1855, was misidentified as a flying pterodactyl for 115 years. The newest finding, though, demonstrates that our understanding of even well-studied fossils like archaeopteryx -- scrutinized, measured, modeled for 150 years -- can still be upended."

Please see the online version for the very complete report. This includes, a cool video clip, nine photos of the other feathered fossils referenced in the article and links to the five articles referenced in the article. Ed.

Directions for the Atlanta Geological Society October 2009 Fieldtrip:

To Stop 1 Los Arcos Outcrop

The field trip will start at 9:30 at the first stop, the outcrop behind Los Arcos restaurant, officially 860 Duluth Hwy. To get there from I-85 take 316 to Duluth Hwy/Ga Hwy 120 and turn left. Turn left at either of the next two lights into the shopping center on your left. It actually is an odd collection of strip malls and the restaurant/outcrop is all the way in the back on the right, butting up to Hwy 316.

To Stop 2 Uniform Depot Outcrop

Leave the shopping center and turn right. Go 0.1 miles to Duluth Hwy and turn right. Go 1.6 miles and turn left across traffic into the Uniform Depot Shop parking lot, 359 Pike Street. The stop is the outcrop in the back of the parking lot.

To Stop 3 Cedar Creek

Turn left carefully across traffic and go through downtown Lawrenceville 3.4 miles to Cedars Road and turn left. Go 0.3 miles down the hill and pull off to the right avoiding the rut. The stop is down to the creek on the right.

To Stop 4 Airport Well and Alcovy River

Go 0.4 miles on Cedars Road and turn right on HWY 316. Go 0.2 miles and pull off on the right just past the guard rail. Stops 4A&B are down to the right by the creek/outcrop/flowing well.

To Stop 5 Maltbie Street Well

Pull carefully back onto HWY 316 and go 1.4 miles to Winder Hwy and turn right. Go 4.1 miles back to the center of Lawrenceville. Turn right on Perry Street just past the old courthouse on the square. Go 0.2 miles and turn left on Maltbie Street and go 0.1 miles to the first street Maltbie Industrial Way and turn left. The sign is hard to see. Go 0.1 miles to end of street/parking.

Afterward

To go back to the cars and the first stop and HWY 316, go to Maltbie Street and turn left to go 0.6 miles back to McConnell Street and turn left and go 0.1 miles to Duluth Hwy. This is much easier than going to the end of Maltbie Street and Hurricane Shoals – tough intersection! Turn right onto Duluth Hwy/Pike Street and go 0.5 miles back to HWY 316.

OR

Go back to Perry Street and to the Square in Lawrenceville and go to lunch at McCray's Tavern, located southwest corner of the square. Parking is available on the Square or turn right on Pike and then immediately left into the parking lot behind the stores that front the Square.

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:

Ken Bechely

Phone: D 404.965.9624

Email: ken.bechely@aecom.com

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

Atlanta Geological Society

Ken Bechely, Treasurer

AECOM

1360 Peachtree Street, NE, Suite 500

Atlanta, Georgia 30309

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.