

Atlanta Geological Society Newsletter

Next meeting of the Atlanta Geological Society is
NOVEMBER 27, 2007

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

President's Message

November 2007

The turnout for Rob Pope's presentation last month on the cleanup status of federal facilities across the Southeast was very good. His review of the numerous projects that he has worked on was informative and enlightening, and I'd like to thank Rob again for doing a job well done. I'm looking forward to this month's poster session by our Professional and Student members on geological or environmental projects/research that they recently or are currently working on. If you are interested in showing off your work in a poster format, all you really have to do is show up (and bring an easel if you can). Our thanks to Vice President Allison Keefer for putting together this annual event.

As promised last month, I'd like to announce that the Executive Committee will meet at Fernbank promptly at 6:30 P.M. on Wednesday, November 14th to re-confirm that our Society is still on track, sticking to our By-Laws, spreading our name throughout the Atlanta Area, and coming up with ways to enhance our organization. Items for discussion will include the upcoming AGS Officer elections, membership and advertising, publications, the status of the AGS Norman Sandford Pottinger Earth Science MiniGrant

Program, and re-configuring some of the committees. As many of you know, all of the AGS committees have special needs and concerns, and all need more support than they are receiving currently. The secret to maintaining the success of our Society is in actively maintaining these committees. Greater active participation lessens the burden on any one individual. So, please review the list of committees on page 6 of the Newsletter, and either contact the individual chairperson or me (nwthompson@mactec.com) to sign-up. Through participation in these committees, as anyone who has served will testify, you will personally gain more than you can imagine. The best way to stay informed with respect to trends in our field is to be active and interface regularly with our colleagues. These committees are an excellent means of accomplishing this. I know that we all want to stay informed, so volunteer and participate. You will not regret it.

Reminder: There is no meeting in December. We will start back up in January with a new meeting date (same time). So, please keep your eye on the Atlanta Geological Society webpage in December for more information. Thanks.

**Refreshments for the November 2007 Social are provided by
Advanced Chemistry Labs, Inc.**

Advanced Chemistry Labs, Inc. (ACL) is a modern, state-of-the-art laboratory in business since 1985 in Atlanta, Georgia. ACL is a woman-owned and -operated small business and an Equal Opportunity Employer. ACL conducts legally defensible testing to help our clients meet their regulatory requirements. For more information please contact John Andros at (770) 409-1444.

**ALABAMA GEOLOGICAL SOCIETY
44th ANNUAL FIELD TRIP**

The Locating, Permitting, and Operation of Construction Aggregate Mining Operations in Alabama

DATES: Pre-trip mixer is Thursday November 29, 2007, 7:00PM with day 1 discussions by Bob Fousek. Trip will be November 30 and December 1, 2007 with bus departing at 8:00AM. Friday night mixer to discuss day 2 by Bob Fousek.

COST: \$90.00 members; \$110.00 non-members; \$50.00 Students. Please register by November 15, 2007. Accommodation and meeting facilities will be at the Holiday Inn Express, 2013 South College Street, Auburn, Alabama, where a block of rooms are reserved for \$99.00 plus tax. Participants are required to make their own reservations (334) 502-1090, Group code- Alabama Geological Society before November 14th.

Description: The 2007 AGS annual fieldtrip will be led by Robert 'Bob' Fousek of FMR, Inc., Auburn, AL. The excursion will have an economic geology theme, specifically dealing with construction aggregate. We will examine the roles that market, transportation, geology, physical characteristics of the stone, and the public perception of mining play in locating, permitting, and operating a quarry in Alabama. Without readily available and reasonably priced construction aggregates, the cost of asphalt and concrete used in the construction of residential and commercial buildings, streets and highways increases substantially. So why is the public generally opposed to the development of new construction aggregate mining operations?

The trip will be November 30th - December 1st with an ice breaker at the host motel from 6:00PM to 10:00PM on November 29. Day one (November 30th) stops will include a greenfield site currently being permitted and a tour of the NCAT (National Center for Asphalt Technology) laboratories at Auburn University and then a visit to the NCAT test track where asphalt designs are developed and tested. On December 1st we will visit a quarry that opened recently and examine the geology and plant operations followed by a visit to quarry that has encountered some water-related problems. We will examine the geology and the ongoing resolution of the water-related issues. As always the trip will offer an opportunity for old friends to visit and meet and make new ones. The cost includes the pre-trip mixer, lunches for both days of the trip, field trip transportation, and a field trip guidebook. Please be sure to book your own room before November 14th. This trip will be worth 15 professional development units for geologists licensed to practice in Alabama.

Early registration is highly recommended due to limited space. For more information contact Lewis Dean at 205-247-3548 or ldean@gsa.state.al.us.

Graves Mountain - Lincolnton, GA

Graves Mountain is a world-class mineral collecting site located in northeastern Georgia. It is accessible and open for mineral collecting. College and university students are especially welcomed to the mountain! In order to gain access, you will need to contact the caretaker, Clarence Norman, Jr (Junior) at 706.359.3862 (his business) or 706.359.2381 (his home). Give him a call and he can reserve the mountain exclusively for your group or individual collectors can sometimes share access. Please note that all of the mineral societies that come here to collect, offer the caretaker a donation for his trouble and effort in keeping the mountain open and assessable to everyone. Please consider what it is worth to you to be able to field collect minerals at Georgia's premiere mineral location!

<http://www.gamineral.org/commercial-gravesmountain.htm>

Share your research and work experiences: The Georgia State University Geology Club invites AGS members to present research/work experiences at club meetings. Please contact Ms. Eliza Andrews at andrews3@student.gsu.edu for additional information.

NOVEMBER POSTER SESSION

The November Atlanta Geological Society meeting will consist of individual posters covering a wide variety of topics that should be of interest to the Society membership. Please join us at the meeting to walk around and learn new things from the many presenters. The social begins at 6:30 pm and the poster session should start around 7:00 pm.

Newsletter Editor's Corner

As members of the Atlanta Geological Society we should often pause to ask ourselves, "What do we want from our membership in the AGS?" More simply, are we members because we like the fellowship or perhaps the free food at the social? Are we members because of the variety of speakers? Does the need for continuing education credits drive us to meetings and the occasional field trip? What do we want from our Society?

Along these same lines, "What do you want from your monthly newsletter?" It is suppose to be informative, but does it provide the members with the right type of information? Should it contain other news or list other events? Should it contain more technical info, such as abstracts and possible figures? What do we want from our Society newsletter?

Of course, all of this depends upon you the AGS member. While I can write, copy, and paste information from various sources, it does not have your input unless you provide me with materials. So, I ask that if you see something that might be of interest to the AGS, you consider providing it to me so that I can include it in the next newsletter. Thanks. Carl

AGS Career Development – Professional Registration

The next Professional Geologist Licensure Examination will be held on March 7, 2008, at 9:00 AM in Macon, GA. The AGS Continuing Education Committee will continue to hold study sessions each month until the test date. The October 27th workshop will concern study materials, strategies, and an overview of the last exam. The workshops are held in the Human Resources classroom at the Fernbank Science Center, 156 Heaton Park Dr from 10:00 am until 12:00 pm on the last Saturday of the month. If anyone would like to contribute to the workshops, we enjoy having speakers, almost any topic would be appropriate, from basic geology to industry specific. Please inform anyone who might be interested in becoming a professional geologist of our workshop. Everyone is welcome, AGS membership is not a prerequisite.
Ken

Phacops rana from the Windom Shale (Devonian)
from the Penn Dixie Quarry in Erie County, New York.
This is in upstate New York, near Buffalo.

<http://drydredgers.org/trip062003.htm>

<http://www.penndixie.org/events/2007/07spec/07spec.html>

<http://drydredgers.org/annualtrips2.htm>

(Contributed by Todd Hendricks – KDEP Geologist)
Approximately 1.8 in (45.7 mm) in length



This is a map of...???



See Answer Below

**Details of this beautiful mosaic are provided in the
Geologic Map of the Greater Atlanta Area**

GEOLOGIC MAP OF THE ATLANTA 1-DEGREE X 30-MINUTE QUADRANGLE, GEORGIA

By Higgins, M.W. and Crawford, R.F. (2006)

The Geologic Mapping Institute

(\$25.00 – Contact David Keefer [(404) 562-8932] for more details)

The Atlanta quadrangle, roughly centered on the City of Atlanta, spans from the Valley and Ridge province in its northwestern corner across the Blue Ridge and into the inner Piedmont. The Brevard zone crosses the quadrangle diagonally. The Blue Ridge in western Georgia and Alabama consists of a pile of nappes made up of folded thrust sheets. In the Villa Rica nappe Chilhowee Group rocks are both above and below the core of Great Smoky Group rocks. Southwest of the Brevard zone is the Atlanta nappe, which preserves a klippe of the Lake Russell allochthon, Carolina superterrane, at Soapstone Ridge. Carolina superterrane rocks (Paulding Complex) are also found northwest of the Brevard. Mylonites along the S.E. edge of the Brevard zone dip under the Atlanta nappe. These mylonites also dip under the N.E. end of the nappe, where they belong to the Dacula shear zone. East of the Atlanta nappe the Lithonia Gneiss consists of a granitoid phase and the Mount Arabia Migmatite. The migmatite occurs mostly around the edges of the granitoid phase and was probably formed when the Ordovician granitoid phase intruded Stonewall biotite gneiss, which occurs around the edges of the Lithonia and locally as roof pendants on/in the granitoid phase. Atop the Lithonia, the Stonewall Gneiss and units of the Allatoona allochthon are the aluminous schist and Chattahoochee Palisades Quartzite of the Sandy Springs Group that have been thrust upon the underlying rocks. The Lithonia and its country rock, the Stonewall Gneiss constitutes a mantled gneiss dome assemblage. Sandy Springs Group rocks emerge from beneath the Brevard and form an outcrop belt along its N.W. side. Northwest of the Sandy Springs outcrop belt the Allatoona allochthon occupies the upper synformal limb of the Talladega nappe and is arched over the Dog River window to expose western Blue Ridge rocks of the Great Smoky and Chilhowee Groups. Northwest of the Allatoona allochthon Great Smoky Group and Chilhowee Group rocks emerge from beneath the allochthon and are part of the Talladega belt. Ordovician granitoids have intruded the Great Smoky rocks, providing evidence that the Emuckfaw/Lay Dam/Bill Arp rocks are older than Ordovician.

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 details on exhibits, films, and events, please visit our website at www.fernbankmuseum.org

On Exhibit:

- *Frogs: A Chorus of Colors*
- *Nature's Jewels: Butterflies and Other Insects (photography)*
- *APALACHICOLA RIVER: An American Treasure (photography)*

Upcoming Public Programs:

- **Cub Scout Day.** Saturday, November 3, 10 a.m. – 2 p.m. Included with admission or membership. Cub Scouts in uniform receive ½ off child's Museum admission, valid 11/3/07 only.
- **Lecture: Prehistoric Sea Creatures of the South, Dr. David Schwimmer.** Sunday, November 11, 2 p.m. Members: free; non-members: free with paid admission. Reservations required, 404.929.6400.
- **Annual Family Holiday Event.** Sunday, December 2, Noon- 5 p.m. Included with admission or membership.

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

- *The Alps: Giants of Nature*
- *Sea Monsters: A Prehistoric Adventure*
- *Africa: the Serengeti*
- **Martinis and IMAX:** Friday evenings, 5:30 p.m. – 10 p.m. 2007 Season Closes on November 23.

Atlanta Geological Society
Treasurer Report – November 2007

Membership Status

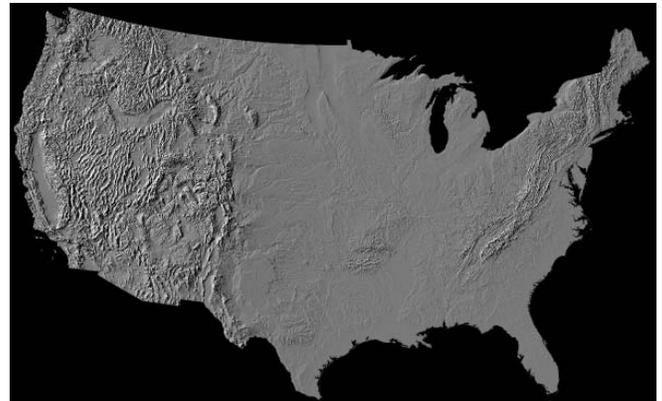
Professional	Student	Corporate
87	10	6

Delinquent

95	12	-
(Please check to see if your dues are paid for 2007)		

Account Balance as of 11/1/2007:

\$3,266.00



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 ELECTION

The Atlanta Geological Society will hold annual elections for the offices of President, Vice-President, Secretary, and Treasurer during the November 2007 monthly meeting. During the October 30th AGS meeting, the appointed Election Committee identified a preliminary slate of candidates. Please contact Ken Simonton at ken_simonton@dnr.state.ga.us with additional nominations from the general membership.

The slate of candidates will be announced at the November 27th AGS meeting. Additional nominations from the floor, duly seconded, may be made following announcement of the slate. Based on the final slate of candidates, the Election Committee will determine whether the November elections will be made by secret ballot or show of hands. Mark your calendars for the November 27th meeting and thanks to all that actively participate in this year's elections!

AGS PRELIMINARY CANDIDATES and OFFICE RESPONSIBILITIES

Candidate for President: (1) Nils Thompson

Essentially the orchestrator at monthly and Executive Committee meetings. The President conducts the monthly meeting by a review of officer and committee reports, old and new business, and important announcements. Anticipate spending 2-5 hours per month on AGS duties.

Candidate for Vice-President: (1) Allison Keefer

Chief responsibility is to arrange speakers for monthly meetings and assist the President in pursuing AGS objectives. Historically, the VP has made the introductions for speakers at monthly meetings. Expect to spend between 1-3 hours per month on AGS duties.

Candidate for Secretary: (1) Jim Kennedy

Record keeper and coordinator of special projects like elections, continuing education credit forms, etc. Really an easy position for those with only a little time to devote to the AGS. Responsible for recording the official records of AGS Executive Committee meetings and the Society. Anticipate 1-2 hours per month.

Candidates for Treasurer: (1) Ken Bechely, (2) Josh Jenkins, and (3) Pat Anderson

Financial record keeper for the AGS. Responsible for maintaining the financial account, paying AGS expenses, and keeping an accurate record of Members and dues paid. Also participates on financial aspects of some committee functions (e.g., fund raising). Anticipate spending between 1-3 hours per month on AGS duties.

Part-time Geology Instructors Needed at Georgia Perimeter College for Spring Semester 2008

Criteria needed to teach at GPC:

Masters degree in Geology with at least 18 graduate semester hours (27 graduate quarter hours) in geology.

Staffing need for Spring Semester on the Dunwoody Campus:

MWF 8:00 a.m. – 8:50 a.m. Physical Geology lecture

TR 6:00 p.m. – 7:15 p.m. Physical Geology lecture

Thurs. 11:00 a.m. – 1:45 p.m. Physical Geology lab

Tues. 7:30 p.m. – 10:15 p.m. Physical Geology lab

Tues. 2:00 p.m. – 4:45 p.m. Historical Geology lab

MWF = Monday, Wednesday, & Friday

TR = Tuesday & Thursday

Who should you contact:

Dr. John Anderson

Department Chair, Dunwoody Campus

770-274-5077

News Release

U.S. Department of the Interior
U.S. Geological Survey

Release Date: Oct. 18, 2007

Contact: Clarice Nassif Ransom, 703-648-4299, cransom@usgs.gov
USGS and AASG Unveil A Geologic Time Scale and Color Scheme for Use in Creating Geologic Maps

Reston, VA - The U.S. Geological Survey (USGS) and the Association of American State Geologists (AASG) announced that they have developed an updated geologic time scale and color scheme for use in creating geologic maps of the United States.

Geologic maps show the rock types at the Earth's surface and help unravel the history of the Earth. They can help inform land-use decisions such as how planners should design buildings, canals, roads, and drainage of farmland. They can help locate earthquake faults and show where landslides are likely to occur to help plan for safer communities. They can help predict where resources such as oil, gas, and coal exist for resource development.

"There is now a national standard for producing geologic maps and communicating the ages of geologic formations in the United States," said USGS scientist Randy Orndorff. "Geologic maps are important tools for policy makers, planners and the general public, and having a streamlined way to create geologic maps helps make them a credible and viable resource for land-use and environmental planning as well as economic development."

Geologists from the USGS, state geological surveys, academia and other organizations have sought a consistent time scale to be used in communicating the ages of geologic units in the United States. Many international debates have occurred over names and boundaries of units, and various time scales have been used by the geoscience community. To help remedy differences, the USGS and the AASG developed "Divisions of Geologic Time—Major Chronostratigraphic and Geochronologic Units," which can be accessed at: <http://pubs.usgs.gov/fs/2007/3015/>.

"AASG considered the development of a national standard time scale to be of critical importance to geologists around the country engaged in the production of geologic maps," said Alabama State Geologist Nick Tew, who represented the AASG in development of the updated geologic time scale. "The AASG was happy to work with our colleagues at USGS in development of the updated time scale."

USGS provides science for a changing world. For more information, visit the USGS Web site at www.usgs.gov. You can also listen to or download a USGS podcast featuring Mr. Orndorff discussing how you can discover what's beneath your feet by using geologic maps at <http://www.usgs.gov/corecast/>.

USGS provides science for a changing world. For more information, visit www.usgs.gov.

Info Kindly provided by David Lovoy (ADEM Geologist)

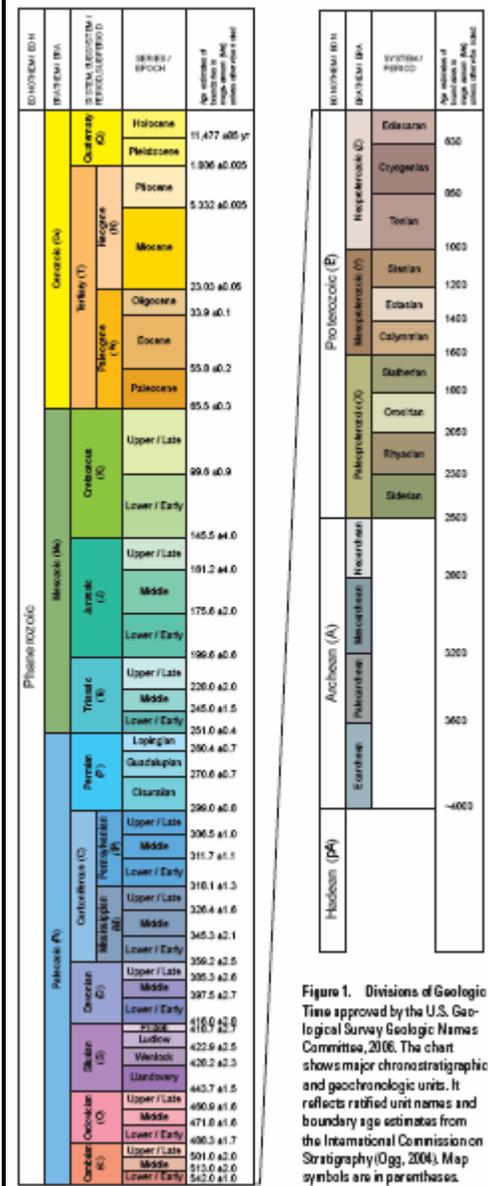


Figure 1. Divisions of Geologic Time approved by the U.S. Geological Survey Geologic Names Committee, 2006. The chart shows major chronostratigraphic and geochronologic units. It reflects ratified unit names and boundary age estimates from the International Commission on Stratigraphy (Ogg, 2004). Map symbols are in parentheses.

Age Terms

The age of a stratigraphic unit or the time of a geologic event may be expressed in years before present (before A.D. 1950). The "North American Stratigraphic Code" (North American Commission on Stratigraphic Nomenclature, 2005) recommends abbreviations for ages in SI (International System of Units) prefixes coupled with "a" for annum: ka for kilo-annum, 103 years; Ma for mega-annum, 106 years; and Ga for giga-annum, 109 years. Duration of time should be expressed in millions of years (m.y.). For example, deposition began at 85 Ma and continued for 2 m.y.

AGS Officers

President: Nils Thompson
nwthompson@mactec.com
 Phone (770) 421-3309

Vice-president: Allison Keefer
allison_keefer@dnr.state.ga.us
 Phone (404) 675-1679

Secretary: Jim Kennedy
jim_kennedy@dnr.state.ga.us
 Phone (770) 421-3402

Treasurer: Ken Bechely
ken.bechely@earthtech.com
 Phone (770) 990-1415

Serving As An AGS Officer/Chair Time to Volunteer

Your Atlanta Geological Society will be voting for several positions at the November meeting (see job descriptions listed in this newsletter). While some folks have volunteered to continue, and some have stepped forward already to fill vacating positions, we still have posts to fill. For example, our current Treasurer (Ken Bechely) has served as Society Treasurer for four years and he is stepping down. We need someone to volunteer to take over this important position within the Society. Please consider stepping up and serving in some capacity. Our Society cannot function if we all just sit on the sidelines.

The officers are considering adding “perks” for individuals who will serve the Society in an effort to attract more folks to positions.

AGS Committees

Career Development: Ken Simonton
ken_simonton@dnr.state.ga.us

Career Networking: Todd Roach
 Phone (770) 242-9040, Fax (770) 242-8388
tdr@piedmontdrilling.com

Continuing Education: Nils Thompson
 Phone (770) 421-3309
nwthompson@mactec.com

Fernbank Liaison: Chris Bean
 Phone (404) 929-6313
chris.bean@fernbank.edu

Field Trips: David Wilderman
 Phone (770) 431-8666, Ext. 238
dwilderman@arcadis-us.com

Geology & Public Policy: LT Gregg
 Phone 770-476-3555
ltgregg@gore.net

Grants & Scholarships: Bill Waggener
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Hospitality: David Sanders
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AGS Publications: David Keefer
 Phone (404) 562-8932
keefer.david@epa.gov

Web Contact: DeLyn Thompson
 Phone (770) 421-3538
dmthompson@mactec.com

Join the Atlanta Geological Society

Membership Application/Update Form

Annual membership dues for the Atlanta Geological Society are \$25 for professional membership, \$10 for students, and \$100 for corporate sponsorship (which includes up to 4 professional memberships). For further details, contact the AGS Treasurer:

Ken Bechely

Phone: 770-990-1415

Email: ken.bechely@earthtech.com

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

Atlanta Geological Society

Ken Bechely, Treasurer

1455 Old Alabama Rd., Ste. 170

Roswell, GA 30076

Name: _____

Organization: _____

Address: _____

Mailing Address: _____

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

Fax: _____

Email 1: _____

Email 2: _____

Ready to Serve the Society in Some Capacity?

Remember that although we have officers and various committees, it is ultimately the membership that keeps the Atlanta Geological Society active and growing. If you have ideas, please share them. Consider how you can step up, even for a limited time, and make our Society better. This is an all-volunteer organization and if everyone waits for someone else to do something – then nothing will ever happen. Please consider how **YOU** can share with the Society and make it an even better organization. We have a world of experience within our membership and we need to tap into it in a way that makes us all better geologists. Please consider volunteering – if even for a short time. Your Atlanta Geological Society needs you.