

Atlanta Geological Society Newsletter

Next meeting of the Atlanta Geological Society is November 18, 2008 Fernbank Museum of Natural History (Clifton Road) Social begins at 6:30 pm – Meeting begins at 7:00 pm

Editor's Perspective...

I'd like to thank Jacq Marie Jack of the USEPA for her presentation on the History and Environmental regulation of the oil industry. It was interesting to learn of the major turning points in that major industry. It is just amazing to see how far the industry has progressed in roughly 100 years, a brief moment in geologic time.

I would also like to thank Wyn Jones of ASI Laboratories for his sponsorship of the refreshments for the evening. Wyn is a long time member of the environmental business community of Atlanta and I appreciate his support of our organization.

Inside this edition of the newsletter there is another in the series of occasional book reviews. Dr. Pamela Gore reviewed 'The Roadside Geology of Florida' and it is included on Page two. Please feel free to submit a review of a geology oriented book. I always appreciate content for the newsletter.

I recently had a chance to buy a four year old boy a birthday present. As it turns out his birthday coincides with the anniversary of the release of the original Godzilla movie, Gojira. You may have seen the version with Raymond Burr edited into the original Japanese version but it is not the better of the two versions. One of the main characters is Japan's leading paleontologist. In investigating the monster's

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recent trip to a local island, they find a trilobite and somehow their groundwater has become contaminated with radiation. I'm not sure that four year old Mack will notice the geological references but I got a kick out of it. As always, I remain,

Looking for good content, Ben Bentkowski, Newsletter Editor jbentkowski@charter.net

The September Meeting

Join us this coming Tuesday, November 18, 2008 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. This meeting will be our third annual poster session. Among this year's presentations will be three posters from a recent USGS / EPA workshop on fractured sedimentary rocks held at the former Naval Air Warfare Center in West Trenton NJ. The posters are authored by Claire Tiedeman, Alan Shapiro and others. While they will not be there, they have graciously forwarded their work on to be shared in the spirit of technology transfer.

For more information please follow the links: http://nj.usgs.gov/nawc/ and http://toxics.usgs.gov/sites/nawc_page.html

Book Review by Pamela J. W. Gore: "Roadside Geology of Florida"

Jonathan R. Bryan, Thomas M. Scott, and Guy H.Means, 2008, "Roadside Geology of Florida," Mountain Press, Missoula, Montana, 376 p. ISBN 13: 978-0-87842-542-6. \$26.

This is a fun book to look through, as well as read in greater detail, because it is so much more than a series of road logs. I have been to Florida several times, but without this book in hand, I missed a lot of geology that I never knew was there. I am going to start planning my next fossil collecting trip. I can't wait for a chance to go back to go back to Florida – probably in Spring 2009 to SE-GSA in Tampa! This book is a <u>must-have</u> for everyone venturing to Florida for the meeting in Tampa or your next trip down to the beach.

This latest edition of the ever popular Roadside Geology series from Mountain Press is the first to be printed in full color and on slightly glossy paper, in a new printing process. The price is a little higher than previous editions (\$26, compared with \$18 or \$20 for the black and white editions), but the difference in appearance and quality is more than worth the slight cost increase. There are 112 color photographs, along with a number of geologic maps and diagrams in full color – a real accomplishment for the Roadside series. Some pages even have an attractive navy blue text, highlighting unusual fossils and geologic features. There are the usual road logs for the major highways, but with a surprise twist – there are even river logs, where a canoe trip can take you through geologically interesting territory - such as the Suwannee, Withlacoochee and Alapaha Rivers, which take you past outcrops with fossil localities (such as agatized coral, Florida's "State Stone"), whitewater rapids (yes, in Florida), and various historic locales. There are a number of side trips to Florida state parks, and separate sections on interesting items along the way - a trilobite found in a Florida drill hole, fossil elephants, fossil saber-toothed cats, fossil whales, sharks teeth, cave pearls, an oil field, sinkholes and springs galore (more than 700 in the state). There is even a photo of the Creature from the Black Lagoon, said to inhabit Wakulla Springs in the 1954 horror flick. There are a number of section titles throughout the book that make for fun reading, such as the one entitled "We Serve Anybody - Fossil Crabs of Florida".

The book divides Florida into five regions: the Panhandle, Northern Peninsula, Central Peninsula, Southern Peninsula, and the Florida Keys, each accompanied by a color geologic map with main roads and towns labeled. Introductory chapters cover the geologic framework of the state, with an emphasis on coastal processes and oceanography, in addition to common rocks, minerals and fossils (illustrated with color photos), and an overview of Florida through geologic time, from the Late Precambrian to the present. The dynamics of the coastal environment are described in a chapter called "Sculpting a Land from the Sea", including geomorphology and processes such as beach drift, the origin of barrier islands, and the effects of hurricanes on the coast. Aquifers, karst, and springs are also described.

The lead author, Jonathan Bryan, is an Earth Science instructor at Okaloosa-Walton Community College, in Niceville, Florida. The book took six years in the making, with input from co-authors Tom Scott on topics such as geomorphology and phosphate mining, and contributions from Guy Means, which include geoarchaeology, as well as figures and illustrations. An overall theme of the book is that Florida has come up out of the sea, and contains a lot of evidence of its submarine past. It belongs on everyone's shelf!

How to get a PG registration in FloridaBy Jack Siegel

Let's say you have been a Registered Professional Geologists in Georgia for eight of more years and, you decide you would like to get your PG in another state, like Florida either because you all of a sudden get new clients down there or you are moving. First thing you do is go to the Florida's website (http://www.myfloridalicense.com/dbpr/index.html) and then start downloading their application (its several pages). Some of information can be completed on-line and you can also pay on line. Next, you would think that since Florida has similar requirements for their PG registration as Georgia that this would be a slam dunk. Wrong. On top of passing both parts of the ASBOG exam and five plus years after graduation, FL wants you to have original transcripts and verifiable work experience. Getting verifiable work experience forms completed probably would not be a problem if you still worked for the same company.

However, if your first five years of Geologic experience is spread between two or three companies, and they no longer exist (totally folding up shop or being merged/acquired by another firm), and you have no contacts with previous supervisors, the fun begins. Forget about trying to email the call desk trying to explain the situation; they are completely uncooperative and it takes 4 days for them to respond with the information you already knew. What you have to do is call. After a half-an-hour on the phone, I was able to get someone sympathetic to my cause. It was determined that copies of employment verification forms from my original GA PG Application could be submitted.

Next step in this bureaucracy was to contact the ASBOG representative at the GA State Board of Professional Geologist (her name is Sandra Mays). Ms. Mays indicated that since my application/file was archived, it could be retrieved without too much difficulty and that the employment verification documents could be forwarded to the FL Board. Unfortunately, my documents could not be forwarded without GA Board approval and, the Board was not scheduled to reconvene until October. I doubt my cause is going to be a high priority and it will probably be the last thing they do.

Editor's note: Next time you see Jack, ask how his journey to out of state registration is going.

From Science Daily Archives

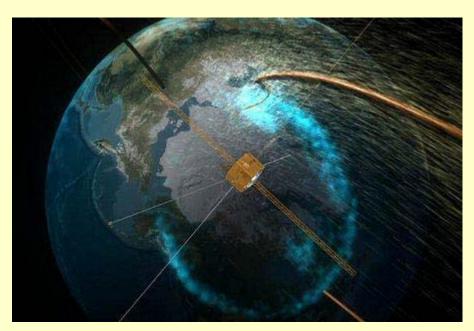
Magnetic Portals Connect Sun And Earth

ScienceDaily (Nov. 2, 2008) — During the time it takes you to read this article, something will happen high overhead that until recently many scientists didn't believe in. A magnetic portal will open, linking Earth to the sun 93 million miles away. Tons of high-energy particles may flow through the opening before it closes again, around the time you reach the end of the page.

"It's called a flux transfer event or 'FTE," says space physicist David Sibeck of the Goddard Space Flight Center. "Ten years ago I was pretty sure they didn't exist, but now the evidence is incontrovertible."

On the dayside of Earth (the side closest to the sun), Earth's magnetic field presses against the sun's magnetic field. Approximately every eight minutes, the two fields briefly merge or "reconnect," forming a portal through which particles can flow. The portal takes the form of a magnetic cylinder about as wide as Earth. The European Space Agency's fleet of four Cluster spacecraft and NASA's five THEMIS probes have flown through and surrounded these cylinders, measuring their dimensions and sensing the particles that shoot through. "They're real," says Sibeck.





Apparently we are starting back up the sun spot cycle. We have been in a minimum but recent sun spots have formed near the northern pole. Apparently, sunspots that had been forming near the Sun's equator are a sign of the old sun spot cycle and sun spots that form near the poles indicate the start of a new cycle which is typically 11 years long. There may be some climatological implications for us earthlings. If anyone knows this better, please write it up. Ed.

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**

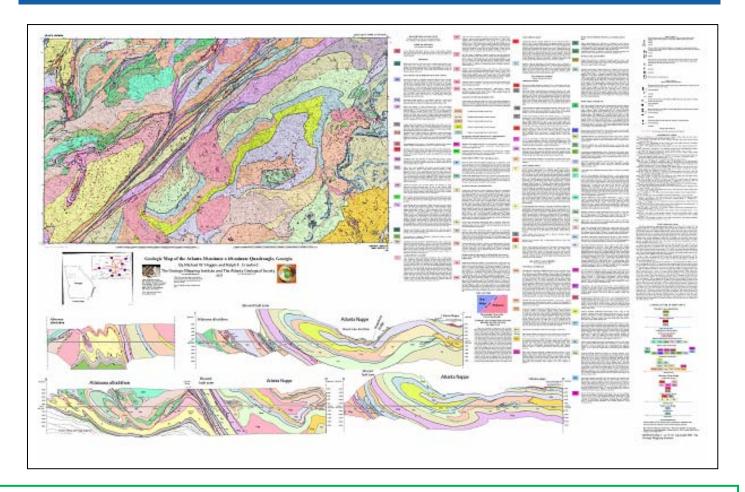
Interesting stories in the news:

Here's an odd blog. Besides the personal stories, there is some interesting information about caving and mineral collecting in Ontario. http://rockwatching.wordpress.com/

Editor's note

We are working on a redesign of the website mostly from a technical basis to make it easier to update the content. Here is the Houston Geological Society website link. http://www.hgs.org/

Please take a minute and look over their site and see if there are features you would like to see in our website with our local content, of course.



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 Allison Keefer [(404) 675-8642] 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

Fernbank Museum of Natural History

767 Clifton Rd, NE Atlanta, GA 404-929-6400 Please note that Fernbank Museum is closed on Thursday, November 27 and Thursday, December 25.

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

On Exhibit:

- Ends of the Earth: from Polar Bears to Penguins
- Penguins of the Antarctic: A Photographic Expedition
- New Permanent Exhibit: Conveyed in Clay: Stories from St Catherines Island
- New Permanent Gallery: Curators Corner: Highlights from the Permanent Collection

Upcoming Public Programs:

- Annual Family Holiday Party. Sunday, December
 7, Noon- 5 p.m. Included with Museum membership or admission.
- Sunday Snow Day. Sunday, December 14, Noon 3
 p.m. Included with Museum membership or admission.

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

- Antarctica
- Final Days! Closing November 26: Wild Ocean
- Opening November 28: The Light Before Christmas
- Martinis and IMAX: Friday evenings, 5:30 p.m. –
 10 p.m. The final M&I for 2008 will be Friday,
 November 28. M&I will return on Friday, January 4,
 2009.

EMPLOYMENT POSSIBILITY

Kevin Seaway, the manager of the Aerostar, Inc. office here in Atlanta has asked that a job opening be listed in our newsletter. He informed me (Newsletter Editor) that they are collecting resumes for an opening in their Atlanta office that he plans to fill in January 2009. He is looking for a person with 2-5 years of experience focusing on Phase I and Phase II investigations. This position has a good deal of travel expected, in the 60% to 70% range. With time with the company and demonstration of qualifications, this position could develop into a client manager position. Aerostar has recently started on a multi-year task order HTRW contract with the Louisville District Corps of Engineers and already has a significant task order.

Mr. Seaway has requested that interested individuals send their resume to him at kseaway@aerostar.net

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 – November 2008

DUES ANNOUNCEMENT FROM THE TREASURER

Get a Jump on 2009. Since AGS operates on a calendar year, your 2009 dues will be due in January 2009. The AGS Treasurer has started accepting 2009 dues and Carl Froede was the first AGS Member to pay for 2009. So take Carl's lead and pay early. 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.

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.

Membership Dues Payment Status:

	Professional	Student	Corporate	Complimentary
2007	39	-	5	0
2008	85	6	16	0
Delinquent	75	-	-	0

Finances:

Account Balance as of October 23, 2008 - \$4,051.04

Ken Bechely, Treasurer <u>ken.bechely@earthtech.com</u> Phone (770) 990-1415

Please note that the email addresses for the following people do not work. If you are one of there people and somehow get a copy of the newsletter, please contact Ken Bechley with your current working email address. If you know one of these people, please ask them to contact Ken as well. Thanks, Ed.

Dave Butler, ibi.lola, J. E. Brewer, Jamie Richardson, the Admin for Geological Mapping, M Kariminia, woodshall, pgci @ pgci.com, J Meitl, Bill Witherspoon at Dekalb County mail address, Mark Cocker, E Lyons, E Gardner, C Kramblis, and Tim Long

Geology Haiku

Spring in the hollows drowns instrumentation but births happy frogs.

Thanks to the blog, Accidental Remediation:

http://shortgeologist.blogspot.com/2008/11/geology-haiku.html



AGS Officers

President: Nils Thompson nils.thompson@lbgatlanta.com
Phone (678) 594-9893, Ext. 202

Vice-President: Allison Keefer allison keefer@dnr.state.ga.us Phone (404) 657-8642

Secretary: Jim Kennedy jim_kennedy@dnr.state.ga.us Phone (404) 463-0679

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

AGS 2008 Meeting Dates

Listed below are the planned meeting dates for 2008. Please mark your calendar and make plans to attend.

November 18th – Poster Session Please contact Allison Keefer for your opportunity to show a poster in November

December - no meeting

The next meeting should be January 27th as that is the last Tuesday of the month. We need to officially clear the 2009 dates with Fernbank so stay tuned for any possible changes.

AGS Committees

AGS Publications: Allison Keefer

Phone (404) 657-8642

allison_keefer@dnr.state.ga.us

Career Networking/Advertising: Todd Roach Phone (770) 242-9040, Fax (770) 242-8388

tdr@piedmontdrilling.com

Continuing Education: Currently Open

Fernbank Liaison: Chris Bean

Phone (404) 929-6313 chris.bean@fernbank.edu

Field Trips: Josh Jenkins Phone (770) 421-3412 iljenkins@mactec.com

Georgia PG Registration: Ken Simonton

ken_simonton@dnr.state.ga.us

Grants & Scholarships: Bill Waggener

Phone (770) 478-5734

wgwaggenerii@bellsouth.net

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ALABAMA GEOLOGICAL SOCIETY

45th ANNUAL FIELD TRIP December 5th and 6th, 2008

DATES: Pre-trip mixer will be Thursday December 4, 2008, 7 PM, with Day 1 trip discussions by Mike Higgins and Ralph Crawford. Trip will be Friday and Saturday with bus departing at 8:00 AM. Friday night mixer will discuss Day 2 trip by Bob Hatcher and Mike Higgins.

COST: \$100.00 members; \$120.00 non-members. Please register by November 1, 2008. Accommodation and meeting facilities will be at the Holiday Inn Express, 40743 US 280, Sylacauga, where a block of rooms is reserved for \$77+tax. Participants *are required to make their own reservations* [(256) 207-1511], before November 4th. Please request AGS group rates.

DESCRIPTION: The annual AGS field trip for 2008 is titled "Alternative interpretations of the Talladega slate belt" and will be co-led by Mike Higgins and Ralph Crawford (The Geologic Mapping Institute), Bob Hatcher (University of Tennessee, Knoxville), Jon Mies (University of Tennessee, Chattanooga), and Bob Cook (Auburn University). On this two day excursion we will explore rocks and structures in the Talladega slate belt in central Alabama. The field trip will focus on new interpretations by Higgins and Crawford that there are two separate Talladega slate belts: a *western* Talladega slate belt that belongs to the Valley and Ridge province; and, an *eastern* Talladega slate belt that belongs with the Neoproterozoic Great Smoky Group and Neoproterozoic to Early Cambrian Chilhowee Group. On Friday we will visit roadcuts and outcrops of the Miller Mill Quartzite, Hillabee fault zone, Lay Dam Formation, Mohorn Creek mudstone (informal), and rocks in the Valley and Ridge near Calera. On Saturday visits will be made to quarries around Sylacauga to examine sheath folds and other evidence of thrust faulting along what has been interpreted to be a regional unconformity. The trip will begin and end at the Holiday Inn Express, Sylacauga, Alabama. **PLEASE BRING A HARD HAT OR YOU WILL NOT BE ALLOWED INTO THE QUARRIES**.

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 room before November 4th**. This trip will be worth 15 professional development units for geologists licensed to practice in Alabama. Please sign and return the liability and registration forms

NOTE: The attached waiver and release form must be returned with registration for attending the fieldtrip. 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.

ldean@gsa.state.al.us.	<u>-</u>
Registration Form	
Name	e-mail
Affiliation	
Mailing Address	
Daytime Phone	Home Phone
Be sure to enclose che	ck payable to Alabama Geological
Society, P. O. Box 8661	84. Tuscaloosa, AL 35486-005

I have carefully read and understand the attached waiver and release form. (checking the statement constitutes the equivalent of the registrant's signature, acknowledging the above release of liability.



Field Trip Release and Indemnity Agreement Alabama Geological Society

_____, in consideration of the receipt by me of permission from the Alabama

Geological Society ("AGS") to participate in a Field Trip entitled	
to be conducted	on
	or dangerous and accepting the aless AGS, the red to as arising out of or or injury to any from the site or uring the Field Tripes of action to or by lemands, actions, ent or contributory ands, actions, and acce of any of loss, damage, or e Field Trip. ction described nitees, or any of er is less. tenforceable, all on had never been
IN SIGNING THIS RELEASE AND INDEMNITY AGREEMENT, I HEREBY ACKNOWLEDGE REPRESENT THAT I HAVE READ THE FOREGOING RELEASE AND INDEMNITY AGREEMENT, US AND I HAVE SIGNED IT VOLUNTARILY. I UNDERSTAND AND AGREE THAT I WOULD NOT BE A PARTICIPATE IN THE FIELD TRIP IF THIS RELEASE AND INDEMNITY AGREEMENT WERE NOT AGREED TO BY ME, AND THAT THE AGREEMENT BY ME TO THE TERMS AND CONDITIONS OF AND INDEMNITY AGREEMENT IS AN ESSENTIAL PART OF THE CONSIDERATION FROM ME FO ALLOWED TO PARTICIPATE IN THE FIELD TRIP.	NDERSTAND IT, ALLOWED TO SIGNED AND FTHIS RELEASE
Dated:	
(Signature)	
(Printed name)	

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: 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:			
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.