



National Association of Geoscience Teachers
Southeastern Section Newsletter
Summer-Fall 2007

Inside:

President's Report (coming soon!)
A New Editor and the Deadline Conundrum
"Change Over Time" at 2008 SE GSA
And the OEST Winners Are..
Rogue's Gallery Savannah
Regional News in Geoscience Ed

WWW . . .

NAGT

www.nagt.org

SE-NAGT

<http://www.gpc.edu/~pgore/nagt/se-home.html>

Geological Society of America

www.geosociety.org

US Geological Survey

www.usgs.gov

Earth Science Week

www.agiweb.org

www.earthscienceworld.org

www.earthsciweek.org

**Winter-Spring 2008
Newsletter Deadline:
February 15, 2008.** Please
send news items to Bill at
wITHERSPOONB@FC.DEKALB.K12.GA.US

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The president's report will be added to the posted issue of the newsletter as soon as it is received.

Editor's Note

Signing on as your editor

In the previous issue, Stan Dunagan signed off as newsletter editor and announced that I would be interim SE NAGT newsletter editor until the next round of elections can be held. Many thanks to Stan for the 11 issues he produced and the transition to an electronic newsletter that he accomplished. He has my admiration for coaxing news from a representative of every state. This goal has eluded me in this issue, but I will keep trying.

My colleague for ten years, our president Nan Huebner, recruited me for this job. I am willing to continue past the "interim" period if the membership desires. There are other volunteer positions in SE NAGT to be filled in the near future, and I hope you will also say yes when Nan calls (or even better, that you will call her first to offer support).

This is a hopeful time for science education. Pedagogical methods are improving, and elementary schools in which science was displaced by an emphasis on reading and math are starting to recover a more balanced approach. At the same time, the need for the public to understand science in general, and the Earth in particular, is greater than ever. This is why helping SENAGT is one of the best possible uses of my time.

Reaching out to the huge population of K-12 geoscience teachers in the southeast is a task of great importance. As Nan proposed in her President's Report in the last issue, we should focus more attention on the meetings of the National Science Teachers Association (NSTA) and its state affiliates.

I take this to heart as newsletter editor. The newsletter should publicize opportunities for geoscience educators offered at the meetings of NSTA affiliates. It should also be visible as a recruitment tool at those meetings.

As this issue goes to publication, I have created two tables showing meeting dates and locations from the web sites of the NSTA and its affiliates, and those of geological societies. They follow this Editor's Note. I was caught off guard by the dates revealed, since Georgia is an exception to the overall pattern. What I learned leads me into a second topic.

Publication dates and the deadline conundrum

The table shows that the state NSTA affiliate meetings, as well as national GSA and the Georgia and Carolina Geological Society field trips, cluster from early October to mid-November. Only Georgia and Puerto Rico do not fit this pattern. In addition, Earth Science Week is in mid-October.

This leads me to conclude that September 15 is the optimum time to publish the Summer-Fall newsletter. As for the Winter-Spring issue, a six-month interval brings us to March 15, which is well suited to serve the two GSA section meetings and the NSTA national meeting.

To maintain my sanity as your newsletter editor, I need to accept those two publication dates as given. Following is my plan to allow this to work.

The official deadlines for this newsletter will be August 15 and February 15. I will be very grateful to contributors who honor those deadlines. I know we all miss deadlines occasionally, especially when we are working as volunteers. I will therefore make every effort to include material that arrives soon thereafter. After the ends of the respective months, the realities of my work schedule make it impossible to promise that your submission will be in the issue posted to the web site on the publication date.

In exceptional circumstances, I may produce a second edition of the newsletter to post on the web site that includes late arriving entries. There is no set date by which this might appear.

If another person should volunteer as editor before the next elections in April, I will be glad to pass the editorship on to another, who will have his or her own plan of attack. In the meantime, I look forward to sharing with all of you in the important work of our organization.

Bill

Bill Witherspoon
 Fernbank Science Center
 DeKalb County School System
 November 13, 2007

Most recently reported dates of past or future meetings

National Science Teachers Association and Affiliates		
Area	Latest date on web site	City
National	Mar. 27–30, 2008	Boston
Southern	Dec. 6–8, 2007	Birmingham
Alabama	Oct. 3-4, 2006	Birmingham
Florida	Oct. 25-27, 2007	Orlando
Georgia	Feb. 14-16 , 2008	Athens
Louisiana	Nov. 1-3, 2007	LaFayette
Mississippi	Oct. 22-23, 2007	Jackson
North Carolina	Nov. 14-16, 2007	Greensboro
Puerto Rico	March 15-16, 2007	Bayamon
South Carolina	Oct. 22-24, 2008	Myrtle Beach
Tennessee	Nov. 15-17, 2007	Nashville

Geological Societies		
Organization (Area)	Latest date on web site	City
GSA (National)	Oct. 5-9, 2008	Houston
GSA (Southeastern)	Apr. 10-11, 2008	Charlotte
GSA (South Central; incl. LA)	Mar. 29- Apr. 1, 2008	Hot Springs, AR
Georgia Geological Society	Oct. 12-14, 2007	Canton
Carolina Geological Society	Nov. 9-11, 2007	New Bern, NC

SE GSA Annual Meeting Workshop for Teachers: “Evolution: Teaching Change Over Time Using the Standards”

Michael Gibson

The 2008 SE GSA NAGT/PS/GSA Ed Earth Science Workshop, “Evolution: Teaching Change Over Time Using the Standards” is devoted to the subject of evolution, which has been identified as a “content need” area for educators. The workshop will follow the format of earlier successful workshops on rocks and minerals, fossils, and plate tectonics.

This year the workshop will be co-sponsored by the Paleontological Society (<http://www.paleosoc.org>). The Teaching Evolution Workshop will be organized for broader appeal as it is applicable to earth science educators and biology educators. We encourage you to consider signing up for the workshop as tandem teams of earth and biology science teachers. There will many ways in which you could compliment each other’s teaching efforts and enter into collaborative learning scenarios with your classes. As always, the Teaching Evolution Workshop will be teacher-driven and based upon both the National Standards and State Standards.

Why this topic and why now?

Evolution needs a definition that is scientific and mutually agreed upon. Evolution is generally taught as a biology topic, hence most pre-service teachers only get the genetic “microevolution” side of evolution. But evolution is one of the most fundamental concepts that span all sciences! Evolution is change and change occurs on all scales of space and time, thus all sciences are fundamentally about change. Nothing to be worried over about that, so we need to take the fear of change away from the teaching of evolution. Because it is so fundamental and omnipresent, we do need to recognize that evolution processes and results vary depending upon the application.

Yet, ironically evolution is the one topic that even the universities either shy away from or teach only from their own specialties, so most pre-service teachers (and practicing teachers) remain woefully under-knowledgeable, or worse, misinformed, on the subject. For example, we teach about organisms changing through time and their adaptations for survival (organic evolution), planets forming and changing (planetary evolution), the development of the solar system and galaxies (cosmic evolution), changing societies and history of our respective countries (cultural and political evolution), trends in human physiology through history (human evolution), shifting continents and mountain building (geologic evolution), replacing our computers each year or two to keep up with new software (technological evolution), and much more. Why is evolution only taught as a biological phenomenon when it cuts across sciences and is also a major part of history, sociology, psychology, etc.? The workshop is formulated to treat evolution from the broader science perspective.

Additionally, evolution is often a “hot topic, hot button issue” when it is in the public sector (I call this “evophobia”), but not in the science sector (hundreds of evolution and teaching evolution position statements have been published by scientific societies on all levels and all support evolution and teaching evolution...NOT ONE position against it exists). Once the public hot button is pushed, the science usually gets lost in the ensuing conflict. The issue then takes on a life of its own and science education loses to mostly emotionally driven arguments between the less informed or agenda-driven.

Science has a very successful methodology that is governed by peer-review and testability. It does an excellent job of weeding out unscientific concepts and dogma. The methodology, which we call the scientific method, is usually only taught in half of its form (the experimental scientific method that is found in chapter 1 of nearly all science texts), but the second half of the method, the “historical scientific method” is rarely taught (except in the historical sciences) and even teachers do not get exposure to it, yet it is fundamental to understanding evolutionary issues. It is this lack of exposure that has most people, even many scientists, arguing from positions of weak knowledge. The National and State Standards say that we should teach evolutionary concepts as completely as any other science concept. The NCLB laws place the burden of teaching good science on us, the teachers. If our students are to compete well in the workforce, they need strong science foundations. Evolution is

not controversial in science...it *is* science, thus if we are to produce good scientists to compete against the many others who want science jobs, then our students need to know the science. Because “evophobia” exists and the topic is often contentious, let me clearly explain what this workshop will NOT be:

- No debates – debating formats don’t decide science, only incite emotion
- No religion bashing – not part of teaching science, so we will not be doing that and it will not be tolerated from workshop participants.
- No religious teaching or discussions of comparative religions
- No arguing over social merits of evolution or religion – focus is on the science
- No professing of personal stances or grandstanding by instructors or participants of workshop – not a forum for this
- Only an air of congeniality and genuine academic discussion will be tolerated.

The evolution workshop focuses on scientific issues as they are outlined in the Standards. We plan on providing training on the interdisciplinary scientific breadth, content basics and newest trends in geological, cosmic, and organic evolution. We will offer useful classroom teaching tips and resources. The format will consist of a combination of lectures (Power Points to be made available to the teachers), hands-on resources, and tested activities. Legal issues of teaching evolution will be addressed only so far as there are resources to make teachers aware of defining legal bounds of what can be taught in the science classroom. A single Friday discussion session will be moderated to allow anyone interested to pose questions and discuss issues related to teaching evolution and dealing with non-evolutionary concepts in the science classroom. Issues related to “creation science” and ID may be introduced in this session by the participants should they choose to. This session is not part of the paid-session, and is thus totally voluntary for attendance. This session will also abide by the tenets outlined above. It is designed to be a time when teachers can share common issues related to teaching evolution with the moderators and each other, share usable solutions that promote sound science teaching, and seek clarifications related to these issues.

The workshop is being organized by Michael Gibson at the University of Tennessee at Martin, with contributions by Ann Holmes, University of Tennessee at Chattanooga, and Dr. Lionel Crews, Astronomy at UT Martin. This workshop will be co-sponsored with the Paleontological Society and NAGT.

What can you do to help the workshop organizers?

The most important thing is your input as to what scientific questions you would like us to address. Please send questions about any aspect of evolution to Dr. Michael A. Gibson, Dept. of Geology, Geography, Physics, University of Tennessee at Martin, Martin, TN 38238 [mqibson@utm.edu; 731.881.7435]. Please pass this announcement on to your biology faculty (or other interested faculty) and encourage them to submit questions for us to address in the workshop as well.

CONGRATULATIONS OUTSTANDING EARTH SCIENCE TEACHERS!

John Wagner

Congratulations to **Patricia Royle** who is our Southeastern Section Outstanding Earth Science Teacher (OEST) for 2007. Congratulations also to the following state OESTs.

Alabama	Natalie Lane
Florida	Tonya Camaratta
Georgia	William Witherspoon
Louisiana	Michelle Brand-Buchanan
Mississippi	Patti Brooks
North Carolina	Sam Fuerst
Puerto Rico	Julio DeJesus
South Carolina	Ina Eaton
Tennessee	Patricia Royle

A photo and biographical sketch of each award recipient begins below.

Kudos to Nan Huebner for an SENAGT First!

It is important to note that this is the first time in history that every state in the Southeastern Section has picked an OEST winner - and also the first time we have ever had a winner from Puerto Rico. Many thanks to Section OEST Coordinator Nancy Huebner for pulling off this impressive feat. Hopefully we can do it again next year.

Patricia Royle (SE Section and Tennessee)

Patricia Royle teaches sixth through eighth grade science at Camden Junior High School in Camden, TN. Her interest in a teaching career became evident to her during her senior year in high school. Rather than take a study hall, Pat decided to tutor first graders. The students were eager to learn, and Pat found herself falling in love with the students and with teaching. Pat will soon complete a three year commitment to the Institute for Middle Grade Educators in Science (IMEGS) at the University of Tennessee at Martin. Not being satisfied with the depth of her knowledge in the earth sciences and with Tennessee geology, Pat has elected to continue her formal earth science education by beginning a Master of Education in Earth Science degree at the University of Tennessee.

Since her arrival in Tennessee in 2003, Pat has become active in state-level earth science activities through the



Tennessee Earth Science Teachers (TEST). Her field trips are legendary with the students as evidenced by the elaborate and comprehensive class projects they complete related to their earth science exposure. Pat actively engaged students from the first day of school right up to final exams in May. "I remember having difficulty in school paying attention to the traditional methods of teaching. When we participated in an activity or lab I was able to understand the concepts," remarked Pat to her OEST nominator.

When Pat started teaching she was determined to reach all of the students, especially the ones who had difficulty paying attention. Pat prefers to implement projects that display and demonstrate student knowledge of earth science, take field trips that actively engage all the students' senses, and connect science to the real world. "I don't expect all of my students to be scientists. However, I do enable them the opportunity to explore the numerous science careers available to them if they choose to pursue science," comments Pat.

Natalie Lane (Alabama)

Natalie Lane, a graduate of The University of Alabama in Huntsville, teaches sixth grade Earth and Space Science at Mountain Gap Middle School in Huntsville, Alabama. Her lifelong passion for teaching is evident in the energy and enthusiasm she brings to class every day. She uses a hands-on approach to learning, routinely incorporating technology and lab assignments into her lessons. She has developed a working relationship with the Marshall Space Flight Center's education program, spreading word of their distance learning virtual field trips.

Natalie has been a sponsor for many clubs and teams at Mountain Gap Middle, including Science Olympiad, Junior Honor society, cheerleading, and she has taken the lead role in taking groups of students to the annual Sally Ride Festival, which works to increase young girls' interest in science. In addition, she is a member of Mountain Gap's reaccreditation and school improvement leadership team (SACS) and the Building Based Student Support Team.



Tonya Cameratta (Florida)

Tonya Camaratta graduated from the University of Florida with a BA in Chemistry and a MA in Materials Engineering. After considering a position in a lab, she decided that she would rather share her enthusiasm for science with students in a classroom setting. She began teaching Earth and Space Science at Buchholz High School in 2003, and feels that she definitely made the right decision.

She sees her work as an opportunity much more than a job. Her main goal is to encourage the students to become excited about science by showing the students that science is not just something to memorize in a book, and by connecting all aspects of classroom learning to real-world events, helping the students become aware of all of the exciting scientific events and discoveries occurring in the world around them.



Bill Witherspoon (Georgia)

Dr. William (Bill) Witherspoon is an instructor in Fernbank Science Center of the DeKalb County Schools. He teaches geology in the highly regarded Scientific Tools and Techniques program for ninth graders. He has developed numerous geology activities for K-12 students, including an activity on the Grand Canyon and geologic time which is now part of the Digital Library for Earth Science Education (DLESE). His Advanced Studies courses for eleventh and twelfth graders have focused on human impacts on the physical environment.

As co-author of the Georgia Performance Standards (GPS) for the new Earth Systems course for high-school students and Frameworks for both sixth grade Earth Science and Earth Systems, Bill is a member of the Science Education Advisory Committee of the Georgia Department of Education.

He has conducted numerous field-oriented teacher-training workshops, most recently co-leading a two week workshop for 15 Georgia Earth Systems teachers, funded by the U. S. Department of Education.



Michelle Brand Buchanan (Louisiana)

Michelle Brand Buchanan is an eighth grade science teacher at Pineville Jr. High in Pineville, Louisiana. She is National Board Certified in science and teaches earth, space and environmental sciences. Her teaching style and use of scientific data in the classroom has brought numerous awards; her most recent accolades include the *US Department of Education's Star Teacher Award for Louisiana* and the *ARMADA Project Master Teacher*.



She has traveled to many countries, some with students, in order to bring a variety of resources to her classroom. She worked with the Antarctic Drilling Program (ANDRILL) in 2005 on the seismic survey team for the Southern McMurdo Sound project. Living in Antarctica for six weeks changed Michelle's perspective on teaching science. Since then, she has emphasized to her students the importance of understanding the science behind everything, as well as incorporating how studies in Antarctica have aided our understanding of these concepts.

Patti Brooks (Mississippi)

Patti Brooks teaches seventh grade science at d'Iberville Middle School on the Mississippi Gulf Coast. She routinely incorporates writing and math skills in her assignments to reach students with a wide range of abilities. Her activities include the presentation of "mini lessons" by the students, mapping the campus, and creating landform models of a section of land in a shoebox which students then measure to create a computer image of the land. After losing all her teaching materials during Katrina, she was proactive about obtaining assistance to ensure that high quality earth science education could continue at her School.

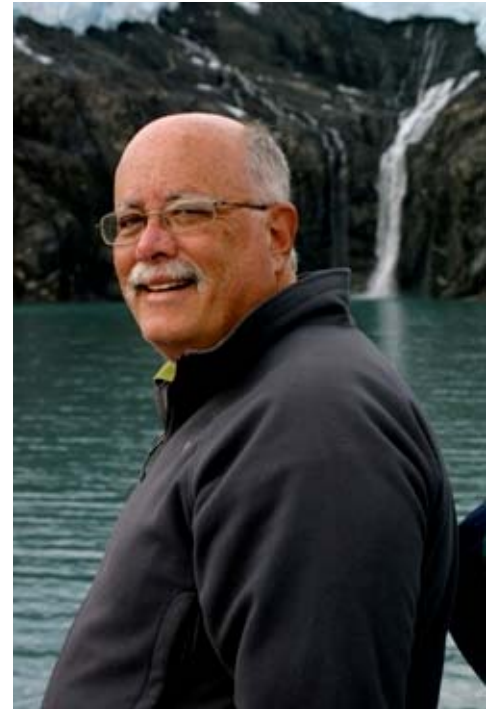
She has taken part in the Industry Education Partnership workshop through Mississippi State University for several summers and was selected as a team leader in 2007. She was selected as the Wal-Mart teacher of the year by her local store. She participates in the GLOBE program, NASA workshops, the Physical Science Enhancement workshop, and is an active member of the Mississippi Science Teachers Association.



Sam Fuerst (North Carolina)

Sam Fuerst has taught the earth sciences for the last 21 years for Durham Public Schools in North Carolina. After receiving degrees in geology from UNC and Duke University, he spent 5 years as a consulting geologist and a petroleum geologist for Shell Oil Company. At the age of 32, he went into teaching. In his years as a teacher, he has conducted numerous training sessions for teachers in geology, both through the school system and in collaboration with the University of North Carolina.

Recently he has completed a website showing a virtual field trip of North Carolina, has taught a workshop for students working with Mars Rover data, and has spent a month on an icebreaker in the Arctic mapping the sea floor. Over one dozen students have gone on to major in the earth sciences after being in his classes.



Julio de Jesús (Puerto Rico)

According to Dr. Juan A. Rivero, distinguished professor from the University of Puerto Rico Mayaguez, " Julio de Jesús has been harvesting honors and distinctions almost since he was born ." His interest in the sciences showed from 8 years old when he started collecting rocks and terrestrial snails. His specialty is malacology [the study of mollusks –ed.].

Mr. De Jesus is admired by the school community for his commitment to education. A sample of this is his constant participation in courses for professional development to improve his lessons. Last year he was one of 25 teachers chosen by the Foundation for Teaching Economics to take part in their program of environmental economics.

He was selected to take part in the Proteomics and Genomics Workshop at the University of Georgia and then accepted, along with 20 other teachers in the United States, for the program of oceanography, The Maury Program at the US Naval Academy in Maryland.



Ina Eaton (South Carolina)

Ina Eaton has taught eighth grade science at Sangaree Middle School in Ladson, South Carolina since 2004. In her 31 year career she has taught every grade of science from fifth through eleventh grade, but earth and space science has always been her favorite. She has been a school leader in introducing technology in the classroom and in modeling ways to actively implement the newest state science standards. Other teachers use her as a reference point and mentor.

Ms. Eaton continually strives to share her love of science and learning with others, both students and teachers. She has been one of the leaders for the school "science night" as well as working with the school science fair and serving as a Quest Coach. She served on the Berkeley County Science Council and the County Textbook Adoption Committee. She believes it is extremely important to get parents and the community involved in student learning.



2008 Outstanding Earth-Science Teacher Awards CALL FOR NOMINATIONS

Outstanding Earth Science Teacher (OEST) awards are given for exceptional contributions to the stimulation of interest in the Earth Sciences at the pre-college level. Any teacher or other K-12 educator who covers a significant amount of earth science content with their students is eligible. Each southeastern state runs its own competition to recognize a state winner. A committee at the section level reviews the state awardee nomination packets to select a regional winner. Individuals may submit an application themselves or nominate a colleague for the award.

Nominations may be submitted at any time during the year, but nominations must be received by May 1, 2008 in order to be considered for the 2008 award cycle. Nominations received after that date will be held for the 2009 competition. The official nomination form and supporting materials should be sent to the state OEST coordinator, the sectional OEST coordinator, or to the NAGT Executive Director (see NAGT web site (<http://www.nagt.org>) for contact information and copy of the nomination form).

The National Association of Geoscience Teachers gives each Section OEST awardee a plaque and a two-year membership in the Association, which includes a subscription to the Journal of Geoscience Education.

In addition, the Geological Society of America provides a monetary award and a 3-year Teachers Associate Membership, and the National Earth Science Teachers Association provides a one-year membership, which includes a subscription to the Earth Scientist.

State awardees receive a smaller plaque and a one-year membership. The following organizations provide tangible support of various kinds such as teaching materials or gifts: American Geological Institute, American Geophysical Union, American Institute of Professional Geologists, and the U.S. Geological Survey.

Contact information for State Coordinators and OEST Section Coordinator Nancy Huebner are listed on the last page of this newsletter. A nomination form is at <http://nagt.org/files/nagt/OEST.v2.pdf> . Please consider nominating someone you know.

John Wagner - OEST Chair, NAGT

A Rogue's Gallery - SENAGT activists huddle in Savannah

Images by Pamela Gore



Section VP Greg Bailey
Whitfield County GA Schools

Eugene Talmadge Memorial
Bridge over the Savannah River



David Schwimmer
Columbus State



Section President
Nan Huebner and
your editor
Fernbank Science Center
of DeKalb County GA
Schools

Steve Henderson
Emory at Oxford



Riverwalk

Tony Martin, Emory
Gail Russell
Southern Mississippi
John Wagner
Clemson



Regional News in Geoscience Education

Alabama (submitted by David C. Kopaska-Merkel and Hurd Finnegan)

AMSTI – innovation that works

I've gotten a number of calls lately from teachers who are participating in AMSTI (Alabama Math, Science, and Technology Initiative). This is an inquiry-based program and it is spreading through the state. This program involves the study of rocks and fossils in third grade, and third-grade teachers have been calling me for help. Perhaps partly because of AMSTI, the Geological Survey of Alabama-University of West Alabama-Discovering Alabama joint field fossil workshop for teachers has filled up very quickly. I regret turning people away, but I'm taking names for next year.

Kits

The enhanced need of third-grade teachers for rocks and fossils coincides with the termination of the Survey's rock and mineral kit. It's unfortunate, but it became more difficult and more expensive to make the kits. We had been selling them for well below cost and it was decided to discontinue the whole practice. The kits will be missed, but I've been giving away labeled fossils for about eight years, and that will continue. This does create an opportunity for an entrepreneur to make and sell Alabama rock and mineral kits for teachers and I hope somebody does that. In recent years the University of South Alabama has made and distributed rock and mineral kits. I have not yet been able to determine whether they still do this. I can't put my finger on any names right now, but I know other groups in the state make and distribute kits of one kind or another. Possibly in the same category, Mr. Don Williams continues to collect, label, and send to the Survey fossils mostly from North Alabama and Tennessee, for distribution to Alabama educators and others. We are hard pressed to give them out as fast as we receive them!

*rock samples
labeled and typical
are precious indeed*

*fossils from my state
may fall into the right hands*

Workshops

I did already mention the workshop. We can teach 26 each time and we do this once a year. There are far more than 26 new science teachers in Alabama every year and we are not keeping up. We have not found a way to get enough grant money to develop a different workshop and we haven't found the time to teach the first one twice a year, or more often.

Other Alabama geoscience workshops include portions of the Legacy environmental-science week-long workshop for teachers, held in the summer, and some workshops at the annual meeting of the Alabama Science Teachers Association. Summer programs for teachers at the Dauphin Island Sea Lab often include earth science components. This year, a regional meeting of the National Science Teachers Association takes the place of the state meeting and I do not know if there will be any earth-science workshops. A couple of earth-science groups will have booths in the exhibit hall and will be giving away free educational materials. Alabama's annual water resources conference, held each year in the coastal area, always includes some earth science, but the participants are primarily not teachers. A University of South Alabama annual workshop for middle-school girls, Expanding Your Horizons, this year renamed Girls Exploring Math and Science, always includes several earth-science activities.

Legislation

Once again, anti-evolution bills were proposed but went extinct.

No Child Left Behind continues to work its By-the-Numbers magic on Alabama public schools, to the

detriment of scientific understanding by schoolchildren. Scarce resources that could be spent on instruction are spent on assessment of knowledge of facts that does not test understanding of processes or ability to solve problems.

Conclusions

In the absence of significant funds, or core earth-science classes, many people continue to do what they can to support earth-science education in Alabama. Most Alabama schoolchildren will graduate from high school knowing virtually nothing of the physical environment until something is changed at the state level.

Florida (no information submitted)

Georgia (submitted by Bill Witherspoon)

Georgia earth science educators have continued to build upon the Georgia Performance Standards developed over the past few years. Frameworks and tasks were developed at the state level for 6th grade (Earth Science) and for High School Earth Systems. The frameworks (6th grade now; high school in the near future) are posted at www.georgiastandards.org/science/frameworks.html.

A new state graduation requirement for four years of science has raised hopes that more high schools will offer the new Earth Systems course. However, it will compete with many other possibilities such as Environmental Science, AP Science courses, and a variety of science specialties intended for students in various technical programs.

A group of 15 high school teachers gathered at Georgia Perimeter college in July for a two-week workshop, Earth Systems and the GPS. The workshop was funded by a U.S. Department of Education Teacher Quality grant, and led by Pamela Gore and Bill Witherspoon. The participants, three of whom are now teaching Earth Systems and more of whom are hoped to follow, received a refresher in the geosciences, an overview of the new standards, four field trips to locations as far away as Chattanooga, and the opportunity to create culminating activities for the frameworks.

SENAGT shared a booth with the Georgia Mineral Society at the February's meeting of the Georgia Science Teacher's Association. Teachers were attracted by giveaways of rock, minerals, fossils, and maps, and a drawing was held for a laminated classroom set of Georgia Geologic maps.

At Southeastern GSA in Savannah, the SENAGT symposium, "Teaching Organic Evolution" was well-attended. Speakers included K-12, museum, and university educators from Tennessee, Florida, Georgia, and North Carolina. However, two Georgia Performance Standards-related workshops aimed at K-12 teachers had to be cancelled due to insufficient enrollment. Apparently, there was little K-12 attendance at the otherwise well-attended meeting. As SENAGT President Huebner noted in the previous issue, to reach the K-12 audience, we need to focus more on the meetings of NSTA and its state affiliates.

The Georgia Geological Society field trip to the Blue Ridge of northwest Georgia was great fun in beautiful October weather, led by Jim Tull and Mark Groznos of Florida State and Valdosta State, respectively. Busloads disgorged along roadsides and into streambeds. Passersby wondered at the collection of academics, consulting geologists, college students, K-12 teachers (yes, a few), and just plain interested folks poring over the rocks.

At the last stop we learned that longtime SENAGT officer Dr. Pamela Gore will be the Georgia Geological Society's next president. I suppose good leadership just has to be shared around.

Louisiana (no information submitted)

Mississippi (no information submitted) □

North Carolina (submitted by Randy Bechtel)

NC Science Teachers Professional Development Institute in Fall 2007

We are gearing up for the Annual Science Teachers Professional Development Institute where we will honor our North Carolina OEST Winner. Also, we will be giving away loads of free materials from the USGS, hundreds of topographic maps from the NC Geological Survey inventory, and for the second year, Earth Science Week Kits sponsored by the Association of Engineering Geologists (AEG).

From the North Carolina Department of Public Instruction
(DPI)

Ed Dunlap, Section Chief, Science Section
Division of Middle and Secondary Education
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DPI Resources

We have recently updated our Science Website. Please check our Science FAQs at <http://www.ncpublicschools.org/curriculum/science/faq/> and the secondary resources links at <http://www.ncpublicschools.org/curriculum/science/secondary/>.

List Serves

DPI has a number of list serves to help keep teachers and administrators informed of news affecting science educators. The following list serves are available: K12 Science Supervisors, Elementary Curriculum Support, Middle Grades Curriculum Support, High School Curriculum Support. To sign up for any of these or request a change in your e-mail address, please e-mail Susan Hart at shart@dpi.state.nc.us. Let her know your first and last name, LEA, e-mail address and phone and let her know which list serve you wish to join.

Fall Facilitative Services Meetings

The Middle Secondary Division will be holding a series of Regional Professional Development Sessions this fall. There will be separate sessions for science, math, English language arts, social studies, and K-12 Programs. Science will focus on the power of Professional Learning Communities. Each district has been invited to send one representative per content area. Registration materials have been sent to each superintendent. For more information, contact Eleanor Hasse (eehasse@dpi.state.nc.us).

Fall Science Supervisors Meeting

Save the Date! Please hold November 14 for the Department of Public Instruction Fall Science Supervisors Meeting in Greensboro. Our meeting will be held in conjunction with the North Carolina Science Leadership Association (NCSLA) meeting and the North Carolina Science Teachers Association (NCSTA) meeting. The purpose of these meetings is to update you on current North Carolina issues and initiatives in science education.

Our meeting will be held at the Koury Convention Center/Sheraton at Four Seasons in Greensboro, North Carolina. Driving Directions and Koury Center information can be found on line at <http://www.sheratongreensboro.com/default.shtml> Registration for the DPI meeting will cost \$75.00 per participant this year and includes breakfast, a break, and materials. Registration forms will be available in late September on our website at <http://community.learnnc.org/dpi/science/> or by e-mailing Susan Hart (shart@dpi.state.nc.us). The meeting will begin with a light breakfast and registration at 8:00 a.m. and include brief updates and information for:

- Elementary, Middle and High School Science
- Standard Course of Study Revision
- Science Safety
- Graduation Project
- New Units - aligned to Revised Blooms Taxonomy
- Virtual Public School Science Courses
- Physics enrollment and brochures
- Science Competitions
- LASER institute and initiative
- CCSSO STEM education initiative update
- Testing updates, Physics test on-line
- Presidential awards
- Summer Professional Development Opportunities
- MSP Project updates
- Effects of tracking on science achievement
- Exemplary Science programs

In the afternoon we will continue our meeting in conjunction with NCSLA's Fall meeting. The featured speaker will be Jerry Valadez, Past President of National Science Education Leadership Association. His topic will target Science and English Language Learners.

Puerto Rico (no information submitted)

South Carolina (submitted by Gwen Marie Daley)

A hot summer lacking in significant rain has resulted in 44 Palmetto State counties currently experiencing severe or worse drought conditions. Many counties have enacted mandatory water restrictions. For more on the drought, including state laws and regulations, please see the South Carolina State Climatology Office (<http://www.dnr.sc.gov/climate/sco/>). The USGS's stream flow data is another good source of information (http://sc.water.usgs.gov/sc_drought.htm) about drought conditions. On September 5th, the National Public Radio (NPR) program "All things considered" did a segment about the consequences of wells going dry in Rock Spring, which is available online at NPR's website (<http://www.npr.org/templates/story/story.php?storyId=14191398>).

In other news, the South Carolina Science Council (SCSC - <http://www.southcarolinascience.org/>) will hold its annual meeting in Myrtle Beach from October 31st – November 2nd. This year's program includes a keynote speech by Mary Higby Schweitzer entitled "T. rex under the microscope: A new look at an old dinosaur" about her research on dinosaur soft tissues. The South Carolina Earth Science Teachers Association (SCESTA - <http://www.ces.clemson.edu/scesta/>) will hold their annual meeting at the SCSC meeting.

The Carolina Geologic Society is hosting a field trip to the Lee Creek Phosphate Mine on November 9th, 10th and 11th, led by Buck Ward of the Virginia Museum of Natural History (<http://carolinageologicalsociety.org/cgs2002.htm>). Space is very limited.

The Southeastern Section of the Geological Society of America will meet in Charlotte, North Carolina April 10th and 11th. As of today, the only field trip listed is to Hiddenite, North Carolina, but other trips and activities should appear in the next few months. Please monitor the meeting's website (<http://www.geosociety.org/sectdiv/southe/08mtg/>) for further developments.

Tennessee (submitted by Michael A. Gibson)
Tennessee Education News (October, 2007)
Michael A. Gibson

The Tennessee Earth Science Teachers (TEST) has revamped its website and plans on additional expansions soon. The new URL: <http://www.tnearthscience.org/test9-04.htm>.

2007 Tennessee Science Teachers Association Meeting.

Nashville hosted the 2007 NSTA Area meeting November 15th-17th (<http://tnsta.com/>). The 2007 TSTA workshop for teachers was "Evolution: Teaching Change Over Time Using the Standards", organized by Michael Gibson at the University of Tennessee at Martin, with contributions by Ann Holmes, University of Tennessee at Chattanooga, and Dr. Lionel Crews, Astronomy at UT Martin. This workshop was co-sponsored by the Paleontological Society. A version of the workshop will be offered at Southeastern GSA 2008 in Charlotte – see the article elsewhere in the newsletter.

Tennessee Updates Science Graduation Requirements for High School.

The State of Tennessee is evaluating its science requirements for graduation. Tennessee is in the process of revising its science standards and adapting them to the distribution requirements for secondary science. Currently the proposal is in committee.

Earth Science Week Proclamation.

Governor Phil Bredesen issued a proclamation establishing Oct. 14-20th, 2007 as Earth Science Week in Tennessee. Similar proclamations have been made yearly since AGI initiated the Earth Science Week program. Tennessee campuses are running special programs that week to celebrate Earth Science education in Tennessee.

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