



National Association of Geoscience Teachers
Southeastern Section Newsletter
Summer-Fall 2014

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WWW . . .

NAGT
www.nagt.org

SE-NAGT
<http://facstaff.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 2015
Newsletter Deadline:**
February 15, 2015. Please
send news items to Bill at
bill@georgiarocks.us
(NOTE ADDRESS CHANGE)

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President's message

by David Kopaska-Merkel, SENAGT president

Welcome to the summer-fall SE NAGT newsletter! Those of us who teach are getting back in town and preparing to dive back into the business of opening young minds. For most of the rest of us, too, it is time to start thinking about the academic year, even though teaching is not our main business. Classrooms will need visitors, and it is not too early to think about OEST nominations, or about the 2015 SE GSA meeting.

2015 SE GSA meeting

The meeting is in Chattanooga, March 19 and 20th (<http://www.geosociety.org/Sections/se/2015mtg/>). The abstract deadline is December 9, 2014. The early registration deadline is February 17, 2015. The web site should be updated soon to show this info. Many of us will attend the meeting and make presentations. Some of those will deal primarily with earth science education. Teachers will attend the meeting, and we'll have the chance to work with them and (I hope) give them some of what they need. Also, we will have our next business meeting there, at which we will elect officers.

Getting more involved in this Society

If you think it is time for you to take a leadership role in the section, please get in touch with me. I would love to talk to you about the responsibilities of the different jobs and anything else you may have questions about. If you, members of this section, want to get more involved in NAGT, but you don't think you're ready to become an officer, there are plenty of other things to do. For instance, you can become an alternate state representative; you can spend some time recruiting OEST nominees, or simply nominate them yourself. You can also recruit colleagues for the SE NAGT. We could use more members, and especially we could use more people active in supporting earth science education at the K-12 level. Anybody who wants to encourage high-quality earth science education for young people will be better able to accomplish that goal if they work with like-minded people, namely us.

Outstanding Earth Science Teacher award

The submission deadline for our section is not until May 1, and you can organize your state OEST program any way you like, provided that you choose a winner before May 1. My personal feeling is that starting early to look for nominees gets us more nominees. So, keep your eyes open. Encourage teachers to nominate themselves or each other. Nominate them yourself if you know enough about the quality of their work. This award is appreciated, by teachers and their principals, and every little bit of encouragement for educators helps. Also, if you've had good nominees in recent years who did not win, please ask them or their previous nominators to try again.

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Planning for Chattanooga SEGSA Meeting

by Bill Witherspoon, SENAGT newsletter editor

In assembling and proofreading “State News in Geoscience Education twice each year, I am amazed at the energy and ingenuity of colleagues in other states as they tackle challenges similar to those in my state of Georgia. Alabama’s new website <http://speakingevolution.org> is beautiful and inventive (“The problem with evolution is not one of science. It is one of communication.”). South Carolina’s recent struggles over K-12 standards have been led by a model advocacy group, South Carolinians for Science Education (<https://sites.google.com/site/southcaroliniansforscience/>). In North Carolina a sponsor is covering costs of an all-day geoscience track at the state science teacher’s conference. In Louisiana, hundreds of high school juniors and seniors gathered for an industry-sponsored geoscience careers event. I wonder what great things are happening in states from which we have not been receiving regular news. Wherever you live, send your news, announcements, and pictures to your state representative, as this is a grassroots enterprise.

Did I leave out Tennessee? This year, not only are they again sustaining a full-day workshop at the state science teacher’s conference, but also they are gearing up to host Southeastern Section GSA. As David mentioned, geoscience education will be represented in the offerings. In particular, SENAGT is sponsoring a theme session and a field trip, both focused on the challenges of teaching evolution. Chattanooga, which is about a two-hour drive from Nashville, Birmingham, Knoxville, and Atlanta, is especially well situated to attract more K-12 educators than usual to these events.

If you have insights to share about teaching evolution, please consider submitting an abstract (by December 9) to the oral and poster theme session, **Teaching Evolution in the Southeast**, described by organizers Patricia Kelley and SENAGT VP Christy Visaggi as follows:

“Teaching of evolution in the K-16 setting is controversial in the U.S., and particularly in the southeast, where religious views that may conflict with evolution are strong. This session will address challenges to teaching evolution in the southeastern U.S., as well as strategies for overcoming these challenges.”

Then consider joining Tennessee NAGT rep Michael Gibson, *The Last Billion Years* author Don Byerly, and me, for the Saturday, March 21 field trip **Evolution and the Evidence around Dayton, Tennessee**. In our description, we state:

“Dayton, TN, less than 40 miles from Chattanooga, is the site of the 1925 conviction of John T. Scopes for teaching evolution in violation of a lately passed Tennessee state law. It also lies at the foot of the Cumberland escarpment, in an area well-suited for illustrating geological concepts. This trip is especially for teachers of middle school through undergraduate students, and will complement the theme session Teaching Evolution in the Southeast. Participants will visit the courtroom where the trial happened and an exhibit of trial memorabilia, and also will see rocks of many Paleozoic ages, examining the evidence of ancient environments from warm tropical seas to steamy fern forests, spanning two hundred million years of Earth history.”

Personal note: Dr. Byerly was my professor in 1976 at the University of Tennessee, Knoxville field camp, located atop the escarpment at Dayton. Helping to organize this trip is for me a bit of homecoming.

Second personal note: I retired from Fernbank Science Center as of September 1. I will continue to edit this newsletter, as well as offer programs for the public on Georgia geology, as listed at <http://geogiarocks.us/events>. Please note my change in email address: bill@geogiarocks.us.

MEETING CALENDAR

Most recently reported dates of past or future meetings

National Science Teachers Association and Affiliates		
Area	Latest date on web site	City
National	Mar. 12–15, 2015	Chicago
Eastern	Oct. 16-18, 2014	Richmond
Southern	Nov. 6-8, 2014	Orlando
Alabama	Mar. 3-4, 2015	Birmingham
Florida	Nov. 6-8, 2014	Orlando
Georgia	Feb. 5-7, 2015	Macon
Louisiana	Oct. 20-22, 2014	Shreveport
Mississippi	Oct. 19-21, 2014	Jackson
North Carolina	Nov. 6-7, 2014	Winston-Salem
South Carolina	Oct. 29-31, 2014	Myrtle Beach
Tennessee	November 6-8, 2014	Murfreesboro

Geological Societies		
Organization (Area)	Latest date on web site	City
GSA (National)	Oct. 19-22, 2014	Vancouver, BC
GSA (Southeastern)	Mar. 19-20, 2015	Chattanooga, TN
GSA (South Central; incl. LA)	Mar. 19–20, 2015	Stillwater, OK
Georgia Geological Society	Oct. 11 - 13, 2013	Dahlonega
Carolina Geological Society	Nov. 8-10, 2013	Salisbury, NC

State News in Geoscience Education

If you would like to contribute state news to the next newsletter, please send your geoscience education information and pictures to your state representative, before February 1, using the e-mail address at the end of this newsletter.

Alabama (submitted by David C. Kopaska-Merkel, Geological Survey of Alabama, Co-State Representative and SENAGT President)

Universities

The Department of Geological Sciences at The University of Alabama has been having a great year. We will be going into the Fall 2014 semester with 17 faculty members. New tenure-track faculty include Drs Dimova and Zhang. Dr Natasha Dimova, a marine and environmental geochemist/hydrogeologist, was previously on a three year temporary appointment. We are glad to report that she has now accepted a tenure-track position at UA. Dr. Yong Zhang, previously of the Desert Research Institute in Nevada, has joined us as a hydrogeologist. Moving into the new academic year we will be searching for a new tenure track sedimentologist. We have high hopes that we will be permitted to add at least one other position. We are also very happy to be able to announce our new web page. We are especially proud of our new graphics. Check it out at <http://www.geo.ua.edu>.

UA continues the long-running series of ALLELE lectures (<http://evolution.as.ua.edu/>) in 2014-15 with six more guest speakers (next season not yet shown on site). The free lectures are open to the public, but are seen mostly by the UA community. They are available at iTunesU

(<https://itunes.apple.com/us/itunes-u/alabama-lectures-on-lifes/id404003891>), and most speakers are interviewed for Speaking Evolution (see below).

K-12 schools

Scientists and other people concerned about the quality of earth science education in the public schools will need to be vigilant in coming months, when Alabama starts looking at NGSS. This is particularly important considering the widespread backlash against Common Core (and Alabama College and Career Ready Standards). Alabama is in the early stages of revising science standards, and will be looking at NGSS, but I've heard nothing specific about earth science. No document is yet available for review by interested parties, but I am supposedly on the notification list.

Other institutions

The Alabama Museum of Natural History did several Summer Reading programs on Alabama fossils, in addition to the usual summer camps and field trips. The museum and Discovering Alabama (a public-television science series) participated in the Alabama Museum Association's Summer Reading Program again this year. Each year, Alabama libraries participate in a summer reading program for their patrons. This year's theme was "Boom, Read!", a science-based program. The Alabama Museum of Natural History and Roger Reid, author of three science-based young-adult adventure novels and producer for Discovering Alabama, presented the story of the geologic history of Alabama. This hands-on presentation allowed participants to get up-close to fossilized remains of ancient creatures that once roamed Alabama.

The Geological Survey of Alabama, natural history museums around the state, Legacy (the state's environmental education organization), the McWane Center, and other such groups continue to host workshops and provide science-education materials as in previous years.

The Geological Survey of Alabama, the University of West Alabama (including the Museum of the Black Belt), Discovering Alabama, and the Birmingham Paleontological Society are once again collaborating to put on a fossil field workshop for teachers this coming October. Last year, the workshop was full (we have a limit of 26 participants), so it's clear there is still a desire among educators to do that paleontology thing.

Speaking Evolution: A new website, <http://speakingevolution.org/>, was created as a safe place for middle and high school science teachers to contemplate how to best communicate evolution to students and others in their communities. State education standards require the teaching of evolution while political pressures demand the opposite. Teachers caught in the middle can share ideas for classroom instruction and outside-the-classroom discussion. Video of conversations with renowned academics provide insight into how they communicate evolution to students and the public. E. O. Wilson, Lawrence Krauss, Marlene Zuk, Scott Edwards, Sheila Patek, Douglas Futuyma and more than forty other world-leading evolutionary scholars let teachers know they are not alone in having to cope with naysayers while teaching the facts. SpeakingEvolution.org is a collaboration among the Evolution Working Group at The University of Alabama, the Alabama Museum of Natural History, and Speaking Evolution.

The Southern Company hosted the RECS program (Research Experience in Carbon Sequestration; <http://www.recSCO2.org/>). This program consists of a 10-day class, which includes field work, site visits, and hands-on activities of various kinds. People connected with carbon sequestration, mostly not geoscientists, learn about the geological aspects of carbon sequestration, among other things.

Roger Reid and various colleagues have been visiting groups of youth around the state to talk about the Steven C Minkin Paleozoic Footprint site (a world class Pennsylvanian track site) and Roger's young-adult novel set at the site ("Time"). Roger has been working with the Alabama Museum of Natural History and the Geological Survey of Alabama, among other groups, to combine science and fiction in appealing ways.

Thanks to Richard Esposito, Andy Goodliffe, Denise Hills, Roger Reid, Allie Sorlie.

Florida (State Representative: Paul Cutlip; no information submitted)

Georgia (information from SENAGT VP Christy Visaggi)

[ed tip: try clicking on the link in the following text to register, rather than that embedded in the graphic]

Title: Mapping Georgia Through Deep Time: Exploring Fossils and the History of Life Using Place-Based Learning in K-12

Dates: Sept 20, Oct 25, Nov 1, Nov 15, 2014

Fee: \$20

Location: 2 Days at Georgia State University, 2 Days in the Field!

To Register:

<https://docs.google.com/forms/d/1WMHvFIncqYIqS2If41OBXiEzniZruHMcdLh1mJh1pv0/viewform?c=0&w=1>

Contact Email: cvisaggi@gsu.edu

Georgia Teacher Workshop in Paleontology Saturdays: Sept 20, Oct 25, Nov 1, Nov 15

Mapping Georgia Through Deep Time: Exploring Fossils and the History of Life using Place-Based Learning in K-12

Place-based education emphasizes hands-on approaches that utilize local surroundings as a foundation for learning concepts across disciplines. In this four day Saturday series workshop, K-12 teachers that cover concepts related to fossils, evolution, and the history of life as per Georgia Performance Standards will explore how to incorporate place-based learning in their instruction by using local examples. Georgia provides a wealth of opportunities for studying paleontology in both space and time as the different physiogeographic regions of the state represent much of Earth history.

The workshop includes two lab days (Sept 20 & Nov 15) to be held in the Department of Geosciences at Georgia State University and two field days (Oct 25 & Nov 1) that will be based primarily at paleontological localities in the Valley & Ridge and Coastal Plain. Pre-packaged lessons, specimen collections, curriculum planning, and an online mapping module will be developed as part of this program. Participants will be able to bring these items into their own classrooms at the conclusion of the workshop and will additionally receive fun giveaways related to paleontology and geography!



Dr. Christy C. Visaggi
Georgia State University

Please follow the link for more information and to register for the workshop!

<https://docs.google.com/forms/d/1WMHvFIncqYIqS2If41OBXiEzniZruHMcdLh1mJh1pv0/viewform>

Louisiana (submitted 8/7/14 by Wendy Demers, State Representative)

Oil and Gas Career Exploration Event

329 students participated in the annual BP Oil & Gas Career event. **Work it! Louisiana** hosted the **Oil and Gas Career Exploration Event** on April 11 at the Highway 311 BP Houma Operation Learning Center. Fifteen public and private high schools brought juniors and seniors from the four-parish region, Terrebonne, Lafourche, Assumption and St. Mary. Students had the opportunity to listen and talk to industry professionals about careers in Engineering, Health, Safety & Environmental, Production Operations, and Production Technicians. Students also learned about the degrees and courses of study available for careers in the Oil and Gas Industry at Nicholls State University, Fletcher Technical Community College, and South Central Louisiana Technical College. This is the fourth year **Work it! Louisiana** has offered this event, which continues to grow. It is made possible through grants written by SCIA.

ConocoPhillips and the National Energy Education Development (NEED) Project partnered for the seventh year to provide teachers in 18 cities with curriculum and training opportunities. The goal is to provide energy professional development opportunities for classroom teachers and to provide engaging and exciting energy curriculum for students in today's classrooms.

Teachers participated in many hands-on activities that demonstrated forms of energy. **Pat Carlos** from Houma Christian School said her favorite activity was testing solar cells. Teachers connected a solar cell to a mechanical toy and then used different bulbs to see which wattage would make the car move the quickest. Information was given on renewable energy and consumption of energy by our nation as opposed to what we as a nation produce.

Participants received all of the materials that were used for each activity so that they will be able to implement activities and explorations when back in their classrooms, all thanks to sponsorship by ConocoPhillips. Teachers were also given online resources.

Diamond Del's Mobile Mining

K-4th grade students at Palmetto Elementary in St. Landry Parish are learning first-hand about rock and mineral classification. Diamond Del's Gem Mining Adventure trailer brought a mining field trip to the school site! Students were able to mine for their own minerals to bring home.

Regional **Elementary Science Matters Workshops** have been held around Louisiana. The workshops designed by members of the LSTA Board and state science leaders target the importance of science in the learning and lives of K-4 students.



Next up in Louisiana

More! Rocks in Your Head Workshop

October 4, 8:30 AM – 3:30 PM

One day workshop for teaching Earth Science Grades 3-8 + HS Earth Science

Sponsored by: Hydrate Energy International Gulf Coast Association of Geological Societies

Cajundome Convention Center

Cost: \$20/Teacher LUNCH INCLUDED

- More! Rocks in Your Head” Classroom-Ready Manual
- Great Rock and Mineral Teaching Samples
- “ENERGIZE Your Future” Career Guide Book
- “Oil and Natural Gas” Hard-Cover Book
- “Hunt for Fossil Fuels” oil exploration game

Contact: Craig Glassinger

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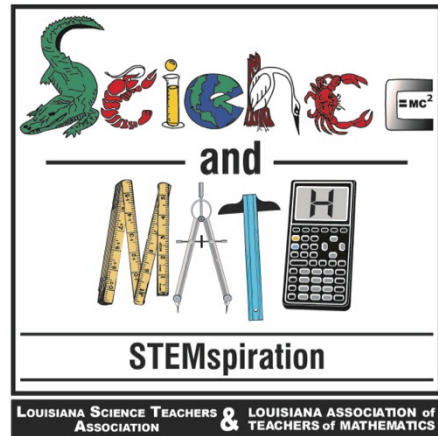
2014 Joint Math and Science Conference

October 20-22, 2014

Shreveport Convention Center

Shreveport, Louisiana

The annual **LESTA Rock Raffle and business meeting** will be held during the joint math and science conference in Shreveport, LA.



Mississippi (State Representative position open)

North Carolina (submitted 8/15 by Randy Bechtel, N.C. Geological Survey, State Representative)

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 - c. Earth Science Room
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 - e. Rock Giveaway Event
- III. N.C. Geological Survey website is in the process of being updated and reorganized

I. **Earthquakes in North Carolina**

- ❖ Three Earthquake Education workshops to be held in September are open to K-12 teachers, non-formal educators, park rangers, etc.
- ❖ Workshops will be held in the following North Carolina cities: Charlotte, Candler and Winston-Salem.
- ❖ See the links below to register for a workshop near you.

The N.C. Geological Survey, in partnership with the N.C. Division of Emergency Management, is offering three one-day workshops for formal and non-formal educators. Participants will learn:

- History of earthquakes that have affected North Carolina
- How to prepare for an earthquake emergency
- New earth science curriculum correlated to Essential Standards
- Hands-on activities to bring back to your classroom or group

Why You Should Attend

- Participants will receive a \$75 stipend or gift certificate.
- Funding is available for substitute teacher compensation.
- Snacks and lunch are included.
- Participants will receive an earthquake education classroom kit, plus an additional kit for their school or organization.
- Participants are eligible for 0.7 CEUs or seven hours of credit toward N.C. Environmental Education Certification (criteria III).
- Registration fee of \$25 will be refunded upon completion of the workshop (personal checks recommended).

Dates and Locations: Register with specific venue

Saturday, Sept. 13 – 9:00 am to 4:00 pm

Discovery Place Education Studio, Charlotte

Register at: educationstudio.org/workshops/content Click on session to register.

Monday, Sept. 15 – 9:00 am to 4:00 pm

Asheville-Buncombe Technical Community College, Candler

Register at: www.wresa.org. Click on session to register.

Saturday, Sept. 27 – 9:00 am to 4:00 pm

Sciworks, Winston-Salem

Register at: www.sciworks.org/ Click on session to register.

Learn More

For more information about the workshops, please contact Randy Bechtel with the N.C. Geological Survey at 919-707-9204 or Randy.Becht@ncdenr.gov.

II. **North Carolina Science Teachers Association Professional Development Institute (NCSTA-PDI)**

a. **November 6-7, 2014 at the Benton Convention Center in Winston-Salem**

The NCSTA-PDI will return to Winston-Salem this year **November 6-7, 2014 at the Benton Convention Center in Winston-Salem**. www.ncsta.org

b. **N.C. Earth Science Teacher and Educator Awards**

During the PDI, attend the award ceremony for the N.C. Outstanding Earth Science Teacher (OEST) and N.C. Outstanding Earth Science Educator (OESE). Visit the N.C. Geological Survey website (<http://portal.ncdenr.org/web/lr/512>) to see previous winners and find out more about the awards, including all of the generous sponsors.

- 1) The 2014 NC OEST award winner is Mr. Mark Townley from Holly Springs High School in Wake

County.

- 2) The 2014 NC OESE award winner is Ms. Cynthia Woolery from Elizabeth Traditional Elementary School in Mecklenburg County.

c. Earth Science Room

Stop by the Earth Science Room, which will offer two days of geoscience education presentations during the conference. This room was made possible by the generous sponsorship of the Carolina Section of the Association of Environmental and Engineering Geologists.

d. Field Trip to Quarry

“Get Your Rock Geek On” and join us for a Friday afternoon field trip to Vulcan Materials Company's North Quarry and Earth Science Education Center. The trip is just a short drive from the Benton Convention Center. Participants will view a working quarry, learn why it's in that location, hear about environmental stewardship practices and learn how a core of solid rock is extracted from the ground. The group will also visit the on-site education building which houses a unique collection of mineral specimens and fossils, as well as examples of everyday products like toothpaste that contain minerals. This Environmental Education Center aims its educational material at the 4th and 6th grades, but teachers of all grade levels are welcome to register for the field trip.

e. Rock Giveaway Event

The Rock Giveaway is back this year! The North Carolina Aggregates Association will be bringing barrels of rocks for tons of fun. Be sure to pick up your ‘bag-o-rocks’ full of samples from across our state then go to the Earth Science Room and attend a presentation to see how to use them in your classroom

III. N.C. Geological Survey website

The N.C. Geological Survey website is currently undergoing an update and reorganization. My focus is on the Geoscience Education section (formerly the Project Earth section), which can be found at: <http://portal.ncdenr.org/web/lr/earth-science-outreach>. Changes to the entire site are underway. Please contact me with any questions or suggestions regarding the Geoscience Education website.

Puerto Rico (State Representative position open)

South Carolina (submitted by Gwen Daley, Winthrop University, Co-State Representative)

While most of the South Carolina science teaching standards revision process has been completed and is now being implemented in schools throughout the state, one standard remains in limbo. Due to the intervention of state senator Mike Fair, the standard dealing with natural selection in evolution was removed from the standards during the February meeting of the South Carolina Education Oversight Committee (EOC) at which the rest of the standards were approved. Senator Fair dropped his objection two days later and claimed he would rectify the problems created by his actions at the next EOC meeting. What he did instead was to attempt to amend the standards with non-scientific jargon right out of the Creationist handbook.

This brought the South Carolina education system unflattering and unwelcome attention from the national media, including Forbes magazine (<http://www.forbes.com/sites/stevensalzburg/2014/08/03/south-carolina-legislator-wants-to-force-students-to-learn-creationism/>). What was generally not reported on in the national media was that the EOC does not have the last word on what is included in the teaching standards. The South Carolina Board of Education (SCBOE) must also approve any changes, and they rejected the amendment at their June meeting.

At this point, it was thought that the failure to reach agreement would mean the old 2005 teaching standard on natural selection (which was scientifically sound) would simply carry over into the new standards. Instead, a compromise committee with members from both the EOC and SCBOE was assembled to settle the disagreement over the standard. The compromise was, like most political compromises, unsatisfying to both sides. It removed most of the non-scientific language, but still treated natural selection as controversial, unlike other scientific subjects. The Discovery Institute was reportedly involved in the writing of the compromise language (<http://www.postandcourier.com/article/20140812/PC1603/140819786/1177/sc-education-department-out-of-the-loop-in-writing-of-new-evolution-standard>). The SCBOE was scheduled to vote on the compromise standard on August 13th, but postponed the vote because they had not had enough time to study the changes (<http://www.postandcourier.com/article/20140814/PC1603/140819684>).

South Carolinians for Science Education (SCEA <https://sites.google.com/site/southcaroliniansforscience/>) continue to lead this fight by speaking to the media and testifying to the various boards, with the help of many like-minded South Carolinians. For updates on the effort to keep science in the South Carolina science standards, please see the SCEA Facebook page (<https://www.facebook.com/pages/SCSE-South-Carolinians-for-Science-Education/108703794114>).

The rest of the 2014 South Carolina science standards revision is complete and standards and supporting material are now available at the Department of Education's website (<http://ed.sc.gov/agency/se/Instructional-Practices-and-Evaluations/Science.cfm>). Supporting documents appeared throughout the month of August, including draft copies of curriculum guides for each grade and "2005 to 2014 Indicator Crossover" documents. Links to other resources such as grant opportunities have also been added. They have requested feedback from in-service teachers via a form linked from that page.

One of the new resources available for Earth Science teachers in South Carolina is the newly invigorated Environmental Education in South Carolina (<http://eeinsc.org/core/news/list.aspx>), sponsored by the South Carolina National Heritage Corridor. This website contains a clearinghouse of information on wide variety of subjects including links to upcoming workshops and webinars, many of which are free. It includes a very useful calendar with all sorts of environment-themed events as well as links to teaching resources, grants and awards.

The EnlightenSC project is also now up and running (<http://eeinsc.org/core/item/page.aspx?s=115681.0.0.37431>). This is a cooperative effort among South Carolina electricity providers to create "an energy and economic education program developed for South Carolina schools and aligned with state standards." They are offering free teacher workshops across the state in September and October.

The annual meeting for the South Carolina Science Council (SC2) will be held at the October 29-31 at the Myrtle Beach Convention Center. Please see their website (<http://www.southcarolinascience.org/>) for registration information. The Carolina Geological Society will also be holding a meeting sometime this fall, but has not yet posted any information about where or when. When they do it will be posted on their website (<http://www.carolinageologicalsociety.org/CGS/Information.html>).

Tennessee (submitted by Michael A. Gibson, University of Tennessee at Martin, State Representative)

The **64th Annual Meeting of the Southeastern Section of the Geological Society of America** will be held in Chattanooga, Tennessee, on 19-20 March 2015. The website hosting details of meeting symposia, theme sessions and pre- and post-meeting field trips is <http://www.geosociety.org/Sections/se/2015mtg/> . Please be aware that the abstract deadline is December 9, 2014, and the early registration deadline is February 17, 2015.

Widely known as “The Scenic City”, Chattanooga owes this distinction to its geologic setting. The city lies along the Tennessee River, among the valleys and ridges of the southern Appalachian fold-and-thrust belt, and within view of the Cumberland Plateau and Blue Ridge. Its name derives from ‘cató’, the Muskogean word for ‘rock’, giving due emphasis to abundant exposure in the area and to the ideal setting it provides for the 2015 meeting of the Southeastern Section. While the geologic setting of Chattanooga is outstanding, the Chattanooga story is equally impressive. Labeled as ‘the dirtiest city in America’ by Walter Cronkite in 1969, our community rallied to turn Chattanooga into a greener and more sustainable community that even now boasts the fastest internet in America. If you haven’t been to Chattanooga in a while, now’s your time to experience its vibrant riverfront both north and south of the river, the historic Walnut Street Bridge, the 13-mile long Tennessee Riverwalk, and other exciting adventures that await your visit. We look forward to seeing you in beautiful Chattanooga, Tennessee!

West Tennessee STEM-HUB Activities. “West Tennessee STEM Hub” or “Hub”, as part of the Tennessee STEM Innovation Network (“TSIN”) aimed at developing a network of West Tennessee communities, individuals, assets and other resources that collectively drive 21st century education innovation in the fields of science, technology, engineering and math. For more information about the West Tennessee STEM-Hub, visit <http://www.westtnstem.org/>.

2014 TSTA Workshop Planned. The 2014 Tennessee Science Teachers Association annual meeting will be held November 6-8 in Murfreesboro, The Tennessee Earth Science Teachers (TEST) has organized its annual day-long workshop around the theme of “*Putting the Pieces of Tennessee Earth History Together*”, which will include representative rocks and sediment from across the state, along with fossils from across the state, similar to kits TEST has assembled since the 1990’s. Emphasizing evolutionary themes, the session focuses on explaining the overall geologic make-up of Tennessee, with lessons on environmental issues, mineral resources, and rock resources, and organic evolution.

Dr. Don Byerly (UT Knoxville geology professor emeritus) will be on hand to sign copies of his new book “*The Last Billion Years*”, which serves as the text for the workshop. Teacher participants will receive hands-on lessons, reading materials, and the popular rock boxes for classroom use. For more information contact Dr. Michael Gibson, Dept. of Agriculture, Geosciences, and Natural Resources, University of Tennessee at Martin, Martin, TN 38238 (731.881.7435; mgibson@utm.edu). A list of individual sessions follows.

- "Pieces of Tennessee Earth History: Piece I – Planetary Evolution"
- "Pieces of Tennessee Earth History: Piece II - Tectonic Evolution"
- "Pieces of Tennessee Earth History: Piece III - Biological Evolution"
- "Pieces of Tennessee Earth History: Piece IV - Putting Pieces Together in TN"
- "Pieces of Tennessee Earth History: Piece V – Using the Pieces in the Classroom"
- "Pieces of Tennessee Earth History: Piece VI - Holding the Pieces Together" - Annual meeting of TEST + new members

Fall Fossils at the Fort

The second annual Fall Fossils at the Fort day will be cosponsored by Nashville Metro Parks, Vanderbilt University, Vulcan Materials Company and will take place at Ft. Negley (800 Ft. Negley Blvd; next to Greer Stadium) overlooking downtown Nashville on Saturday, November 1, 2014. Ft. Negley is a historical park that documents the history of the largest Union fort built in the south during the Civil War. The hillside fort, built with the crucial assistance of freed slaves, loomed over Nashville throughout much of the war. Although never the site of a battle, its strategic, imposing location had a strong influence. The history of Ft. Negley and Middle Tennessee extends hundreds of millions of years before the Civil War to a time when Middle Tennessee was far from land, and covered by a shallow sea, in which corals and other marine organisms flourished. The Fall Fossils at the Fort event celebrates this long history – from the 400 million year old fossils that thrived in the shallow seas, to the Civil War, to the present day – where the slightly more erosion-resistant limestones of the Catheys Fm refuse to be eroded and stand as a testimony to both the environment in which they formed and to the United States history that they influenced. Planned activities include:

- Guided tours of the *in situ* coral heads of Ordovician age exposed at Ft. Negley.
- Sidewalk Chalk Geologic Time Line – (presented by Vanderbilt students)
- Devonian fossil collecting using fossiliferous rocks brought in from Parson, TN quarry (provided by Vulcan Materials Company)
- Demonstration of how Civil War soldiers lived (tents, cooking fire)
- Marshmallow roasting on campfires

For more information call Ft. Negley Visitor Center and Park (615) 862-8470 or Molly Miller (Earth and Environmental Sciences, Vanderbilt; 615-322-3528) or visit <http://www.nashville.gov/Parks-and-Recreation/Historic-Sites/Fort-Negley.aspx>.

Paid Summer Research Opportunity for Future Teachers

Future Earth science, chemistry, and biology middle school and high school teachers will earn \$4,500 and receive free room and board while participating in geoenvironmental research during June and July of 2015. The project includes a five-day field trip to Mammoth Cave and Great Smoky Mountains National Parks and travel to the 2016 Geological Society of America (GSA) Annual Meeting in Denver, Colorado. (Like everything else in this project, the five-day field trip and travel to 2016 GSA are all-expenses-paid.) Sophomore, junior, and senior -level undergraduates are encouraged to apply. Applicants must intend to earn a bachelor's degree no sooner than the end of the Spring 2015 term. The Summer 2015 application will be available in early November, 2014. Contact Mark Abolins (Mark.Abolins@mtsu.edu) for more information. Also, check out the Geoenvironmental Challenges project website: <http://capone.mtsu.edu/mabolins/REU.pdf>.

An online Outstanding Earth Science Teacher (OEST) nomination form is now available at <http://nagt.org/nagt/programs/oest-nom.html>.

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