

Bulletin

National Association of Geoscience Teachers Eastern Section

Winter 2014

Vol 64, No 1

Cold enough for you? Time to think **NAGT-ES SPRING Conference**

Yes, Virginia, spring usually does come after winter, and we certainly hope we can experience it in the state of Virginia this May. Our conference information is in this issue, so circle it on your calendar and get your registration in before you forget. May isn't far away, so make your plans now.

We Need Award Nominations!!!

Good for Recipients, Departments, and the Profession:

Check out the Choices - K-12 and College Level - and Submit a Nomination!!

Please consider nominating an individual for one of our National NAGT or Eastern Section awards. A large part of our annual eastern section meeting is devoted to recognition of those individuals who have excelled in the area of geoscience education. We need your input! Information about all our eastern section awards can be found on our section website. Completed nomination forms should be sent to Eastern Section Awards Chairperson Steve Lindberg, except as noted below.

DIGMAN AWARD FOR EXCELLENCE IN GEOSCIENCE EDUCATION

The Digman Award is designed to recognize an individual who works to bring geoscience to the general public. We look for individuals who are not teachers; but work in a capacity that educates the general public in areas of the geosciences. Museum directors, curators and assistants, state survey employees, mine and quarry public relations people would all qualify for this award. The nomination form for this award is also on our section website.

JAMES O'CONNOR MEMORIAL FIELD CAMP SCHOLARSHIP

The James O'Connor scholarship is given to a college geology or earth and space science major who is attending a geologic field camp course (typically over the summer) as part of their college degree program. The \$500 scholarship assists the student in covering the expenses of their field camp. Nominate a student currently enrolled in your geology program. Nomination form appears on section website.more on page 9

**EASTERN SECTION NAGT
OFFICERS**

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Secretary: Rosemarie Sanders, 914-721-0948; email
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Publicity Chairperson: Vacant; volunteers welcome.

NAGT 2YC Division Representative: Rich Gottfried;
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* * * * *

Councilors: (For all, years of office are in brackets;
terms begin and end at the spring section meeting.)

Delaware

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Ontario

No Councilors at present; volunteers welcome.

Pennsylvania

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[13-16].

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Building, 777 West Harrisburg Pike, Middletown, PA
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<jpetula@yahoo.com> [11-14].

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<pyleej@jmu.edu> [12-15].

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Angela A. McKeen, St. Mary's Catholic School,
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<amckeen71@gmail.com>. [13-16].

Deb Hemler; contact info in 2nd Vice President listing
above [12-15].

* * * * *

Award Chairpersons

Distinguished Service Award - Steve Lindberg; 814-539-
7723(H); email <minerlight@atlanticbb.net>.

John Moss Award - Jim Hensel - see Archivist listing
given above.

Outstanding Earth Science Teacher Award - Steve
Lindberg; see DS Award listing given above.

Ralph Digman Award - Steve Lindberg; see DS Award
listing given above.

**James O'Connor Memorial Geology Field Course
Scholarship** - Steve Lindberg; see DS Award listing
given above.

Eastern Section NAGT Internet website address:

<<http://sites.google.com/site/nagtes>>

Paper copies of the Bulletin: We'd like to
keep this list short, but if you need to
receive a paper copy of the Bulletin, please
send your name and address to the Editor
by mail or email (address on this page).

The National Association of Geoscience Teachers

Eastern Section Spring Conference May 15-18, 2014

Hosted by James Madison University, Harrisonburg, VA

“A Billion Years Between Friends: A Record of Earth Systems in the Virginia Blue Ridge, Piedmont, and Valley & Ridge”

Eric Pyle, Department of Geology & Environmental Science, Conference Host

Contact Eric Pyle, conference coordinator at: pyleej@jmu.edu

Harrisonburg, VA, is situated in the middle of the Shenandoah Valley, in a broad section of the “Great Valley” of Virginia. Flanked on both sides by mountains reaching nearly 3500 feet high, the Valley is rich in history from the 1730’s up through the Civil War and beyond. Originally settled by German Moravians and Ulster-Scots Presbyterians, the geology of the region has supported extensive agriculture as well as base-metal extraction. But these historical facts are just the tip of the iceberg, so to speak.

While the Valley itself is represented by early Paleozoic sedimentary rocks, the Blue Ridge Mountains to the east are built of billion-year old twice-metamorphosed rocks, capped by 600-million year old greenstones. Continuing to the east, one crosses the iron-rich soils upon which Thomas Jefferson and James Madison built their homesteads and into the Triassic basin rocks on the flanks of the Piedmont. And then things get really messy! But if one travels west across the Valley, one passes through a younger, structurally diverse suite of early and middle Paleozoic rocks that form the Valley & Ridge. But the story does not stop there – the Valley hosts a number of unmistakably volcanic features, which date to the Paleogene.

Our event this year will attempt to capture this range of ancient and more contemporary features with a range of activities. Thursday night will include a light reception followed by an exclusive show in the John C. Wells Planetarium, presented by Shanil Virani. Friday morning provides the opportunity for you to share your newest and best ideas for teaching Earth science during the concurrent sessions. At the same time, the JMU Mineral Museum will be open for your viewing enjoyment.

Friday afternoon offers you a choice of events – first, IRIS has offered to provide an educator workshop, which is significant considering the recent Louisa M5.8 earthquake. IRIS offers the following description of their workshop: *This workshop would introduce faculty to a collection of recently developed inquiry-based, data-rich classroom modules. These modules introduce undergraduates to core geoscience concepts, while also showcasing areas where modern seismological research actively contributes to our understanding of fundamental Earth processes. Modules, rooted in seismology, ultimately convey a variety of topics commonly included in introductory geoscience classes. How do faults slip? How does the near surface environment affect natural hazards and resources? How do magmas ascend and erupt? How do processes in the ocean and atmosphere interact with the solid Earth? What is the lithosphere-asthenosphere boundary? Where are water and hydrocarbons hidden beneath the surface? Also includes: Transcending nomograms and the S-P method: Modernizing the*

seismology you include in your 100 and 200 level geoscience courses. Presented by Melissa Driskell, U. North Alabama and Michael Hubenthal, IRIS Consortium.

If the field is more of a draw for you, then we have a local field trip as the other choice for Friday afternoon, which features two stops. Frazier Quarries will provide a local plant tour in the Edinburg Limestone quarry, from which the bulk of the original JMU campus is built. Frazier Quarries local plan shows not just a wonderful dark micrite that weathers light gray, but it also shows complex secondary calcite veins, some of which contain purple fluorite. The second stop will be a brief hike up Mole Hill, an Eocene volcanic neck composed of basalt last with mantle-sourced olivine and spinel. This trail is on private land and is unimproved, but collecting is allowed in each location.

Friday dinner will be on your own, but we will cap the day with the annual Geo-Auction.

Saturday offers a choice of day-long field trips. **Trip 1** takes us into the distant past, traversing the late-Proterozoic metavolcanic rocks, into the core of the Blue Ridge, and then on into the Piedmont, including some of the diverse terranes that were accreted onto the flanks of Laurentia. **Trip 2** will also start at the Blue Ridge, but travel west across the Page Valley and Massanutten Mountain, ending in the peaks of the Valley & Ridge. For each trip, we will filter the experience through the complexity of Earth systems. Collecting is allowed at some, but not all locations.

Other Nearby Attractions include:

The renowned Green Valley Book Fair, located just a few miles south of Harrisonburg, offers several buildings full of deeply discounted books, generally publisher's overruns, covering the near entire range of topics one would expect in a full-service bookstore. But at prices up to 90% off retail!

The Frontier Culture Museum is a living history experience near the town of that explores the history of the first non-native residents of the Valley, including the English, Germans, Irish and Africans, through reconstructions of representative households from the lands in which they originated.

For those of a subterranean bent, Luray Caverns is one of the many commercial caverns all along the Shenandoah Valley. But Luray Caverns is one of the oldest and least "glitzy" caverns in the area, offering unique cavern features with a dose of history.

And since the Blue Ridge Parkway ends nearby and Skyline Drive begins, hiking trails can be found in abundance, including those in the Shenandoah National Park. Or if you would like to try your kayak or canoe out in new waters, there are numerous boat landings along the North River and the South Fork of the Shenandoah River.

Conference Agenda

Unless otherwise specified, all events will be held in Memorial Hall. Transportation for field trips will be provided. Field trips depart from and return to Memorial Hall.

Thursday, May 15:

3:00 pm – 6:30 pm Check in at Hotels – Quality Inn and Courtyard Marriott. Dinner on your own this evening.

6:30 pm – 8:00 pm Presentation in the John C. Wells Planetarium, JMU, with light refreshments. Presentation will be *Ice Worlds*, followed by seasonal star talk. Program will be found at <http://www.jmu.edu/videos/planetarium/ice-worlds.shtml>. Pick up registration materials at Planetarium.

Friday, May 16:

8:00 am – 9:00 am Conference check-in and registration Memorial Hall. Conference materials pick up. Enjoy the JMU Mineral Museum over coffee with friends.

9:00 am – 12:00 pm Concurrent sessions: Share your best activities, recent adventures, or critical issues. Please use the form included with this announcement.

12:00 pm – 1:00 pm Pizza lunch in Memorial Hall (provided as a part of registration).

1:00 pm – 5:00 pm IRIS Faculty Development Workshop (see description above).

OR

Local Field Trip: Frazier Quarry and Mole Hill.

5:00pm – 6:30 pm Dinner reservations have been made at a local restaurant, but you may choose any other located in the area.

7:00 pm – 10:00 pm Overview on Saturday Field Trips and Geo-auction, with desserts and other sweets.

Saturday, May :

8:30 am – 5:00 pm Choice of Field Trips – Box Lunches are provided!

Field Trip 1: The Old Stuff: Blue Ridge and Piedmont – Late Proterozoic/Early Paleozoic (mostly) crystalline rocks that make up the Blue Ridge and western & central Piedmont of Virginia. Led by Eric Pyle (JMU) and Matt Heller (DMME).

Field Trip 2: The (Less) Old Stuff – Mid-Paleozoic folded sedimentary rocks in the Valley & Ridge of Virginia. Led by Lynn Fichter and Steve Whitmeyer (JMU).

7:00 pm – 9:00 pm Eastern Section Awards Dinner Banquet. Memorial Hall, JMU. Speaker: Matt Heller, Virginia Division of Mines, Minerals, & Energy, speaking on mapping efforts Virginia by the DMME, including the Louisa area.

Sunday, June 2:

9:00 am – 11:00 am Eastern Section business meeting and breakfast buffet (\$10/person, payable on site), Memorial Hall, JMU. All members welcome to attend, reservations required.

Hotel/Housing Information:

It is the responsibility of the conference attendees to arrange for their hotel rooms or other housing. Conference lodging is NOT included in your registration fees.

There are two hotels in Harrisonburg for which limited blocks of room have been reserved:

Courtyard Marriott: 1819 Evelyn Byrd Ave., 540-432-3031. This location has single rooms only reserved for the conference attendees. Please be sure to mention that you are in the NAGT group. Hotel rooms have been reserved at a cost of \$77 plus taxes and will be held until April 24th. Breakfast not included in this rate but there are restaurants nearby. Use group name “NAGT Eastern.”

Quality Inn: 1881 Evelyn Byrd Ave., 540-442-1515 or 540-442-6655. This location has double-bed rooms only reserved for the conference attendees. Please be sure to mention that you are in the “NAGT-Eastern” group. Hotel rooms have been reserved at a cost of \$77 plus taxes and will be held until April 28th. Continental breakfast is served each morning. Use group name “NAGT 2014.”

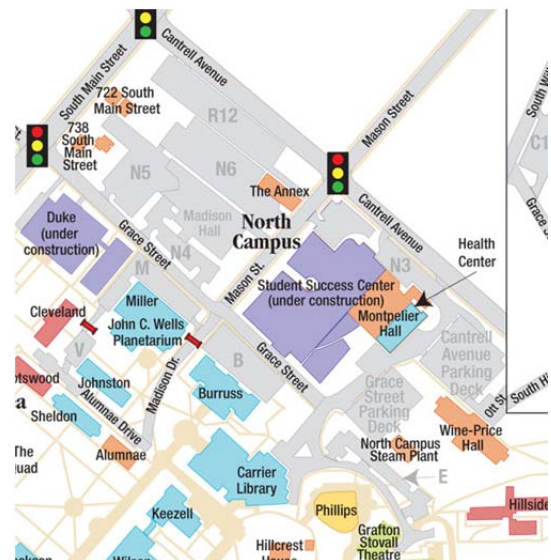
Other hotels in the area include a Four Seasons (ICC Hotels), Hampton Inn, and the Stonewall Jackson Bed & Breakfast.

Directions:

Harrisonburg is located in the Shenandoah Valley of Virginia, between Staunton and Winchester, at the intersection of Interstate I-81 and US Route 33. Generally speaking, the best exit to use is Exit 245, which deposits you on Port Republic Road. Travel to the west (turn left if you are arriving from the south, turn right if you are arriving from the north) and stay on this road until you meet South Main St., then turn right. At the third traffic light, turn left on to Martin Luther King Jr. Dr., which is also marked as “historic Cantrell Ave.” This road takes you right into the Memorial Hall parking lot. Park in lot C8 (see Map A below). The Planetarium show will be held in Miller Hall, which is a short walk from Memorial Hall, but parking can be found in lot N4 or N5, across Grace St. from Miller Hall (see Map B below).



Map 1



Map 2

(a complete campus map can be found at <http://web.jmu.edu/parking/parkingmap.pdf>)

Registration Form

National Association of Geoscience Teachers Eastern Section Conference and Field Trips
May 15-18, 2014, Harrisonburg, VA

Each participant must submit a registration form. Lodging accommodations are the responsibility of the registrant. Pre-registration for the conference deadline is **April 25, 2014**, but hotel cut-off dates are different.

Please fill in the form below and indicate your registration preferences.

Make a check for the total registration fee payable to **Eric J. Pyle** and send it along with this form to: Eric J Pyle, Dept. of Geology & Environmental Science, MSC 6903, James Madison University, Harrisonburg, VA 22807

Name _____

Affiliation: _____

E-mail: _____

Mailing Address: _____

Cell phone: _____ Home phone: _____

OESTA Award Winners from Spring 2013 meeting attend Free! Please indicate this on your registration information.

Please circle the appropriate selection(s) below:

Full Conference Registration (does not include Saturday Banquet)

NAGT member	\$50
(after April 25, 2014)	\$60
Spouse/Significant Other	\$30
Student	\$30
Non-member	\$60
(after April 25, 2014)	\$75

Friday PM: please select
IRIS workshop: _____
OR local field trip: _____

Saturday: please select
Field Trip 1: _____
OR Field Trip 2: _____

Friday-Only registration

NAGT member	\$35
Student	\$30
Non-member	\$40

OEST 2013 Awardee?: _____

Saturday-Only registration

NAGT member	\$35
Student	\$30
Non-member	\$40

Saturday Awards Banquet and

Keynote Speaker -all	\$35
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(no charge for 2014 OESTA winners and one guest)

Total Enclosed: _____

Sunday Business meeting and breakfast located at JMU (on-site cost of \$10/ person; don't pay with this form).

Please circle: I will attend business meeting yes no

If you wish to use PayPal, you may use this option by adding a 3% surcharge to your registration. Please use ebpyle@verizon.net as the payee ID, and put "NAGT-Eastern" in the payment subject line. You must email your registration separately to pyleej@jmu.edu.



PRESENTATION PROPOSAL FORM
NAGT-Eastern Section 2014 Annual Meeting

Submission Deadline: April 30, 2014

Presentations will be scheduled for 45-minute blocks. Double sessions will be accommodated only as space and time permits. As many presentations as possible will be accommodated.

Return completed form to: Eric J. Pyle, Dept. of Geology & Environmental Science, MSC 6903,
James Madison University, Harrisonburg, VA 22807

You may also submit proposal electronically at pyleej@jmu.edu

Poster displays are also welcome and should use this same proposal form.

Name: _____

Email: _____

Affiliation: _____

Address: _____

Phone: _____ Fax: _____

Presentation Title: _____

Description (max. 100 words): _____

Presentation equipment needed: (all rooms have projectors, computer, laptop drop and sound)

Other facilities needed?: (subject to availability) _____

Check one: _____ Poster presentation _____ Oral Presentation

Awards continued from page 1

DISTINGUISHED SERVICE AWARD FOR THE EASTERN SECTION

The Distinguished Service Award is given to a member of the eastern section (still actively teaching or retired) who has, over the years, contributed to the growth and activities of the Eastern Section. This person should have a history of continued service to the eastern section. Nomination form appears on our website.

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A free online geology magazine

Member Randy Newcomer reminds us that the PA Geological Survey has an online magazine that might be of interest to NAGT members. Here's the Survey's description, and the URL for the site is below:

Pennsylvania Geology is a free online magazine published by the Bureau of Topographic and Geologic Survey. It includes articles on the geology of Pennsylvania, earth science education, and topographic mapping, and announcements of new publications, conferences, and other geologic and topographic items of interest.

In August 1969, the magazine began as a two-color, printed, bimonthly publication. In 1992, it became a quarterly publication, and with the Spring 2009 issue, it became a full-color, online publication.

You can find the magazine online here, for the current issue & past issues: <http://www.dcnr.state.pa.us/topogeo/publications/pageonline/index.htm>

ArcGIS Online: Bringing GIS to your students' browser by Martin Schmidt

Did you know that you can go to www.arcgis.com and make your own maps? If you open a free account, you can save maps, and upload some files, such as a zipped GIS shapefile; a comma, semi-colon, or tab delimited text file (CSV or TXT); or a GPS Exchange Format (GPX) file with up to 1000 features in it (or 250 features when geocoding addresses). You could then use this map in your class by opening it with a browser.

The next step is if your school has an ArcGIS Online Organization Account with arcgis.com, you can create web maps and publish them, so your students can open them with a browser and be using GIS without having to load any software. Your school can get an Organization Account if you have an Esri GIS software license, or may be able to purchase an Organization license separately.

To see an example of a geology-oriented web map for student use, go to <http://MDgeoEd.maps.arcgis.com> and then on the opening page, click on Maryland Geology for Education. Once on the page, click on the Content word (or button) at upper left to see the layers - check off the boxes to the left of each layer name to turn it on. Click on the map to identify information on the visible layers. Use the drop-down lists at the right end of each layer name to do other actions on that layer. Experiment!

At our NAGT-ES conference in May, I may be demonstrating some lessons that are aligned with NGSS standards that use this map.

GEOVENTURES

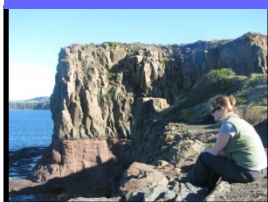
“Because the best geologist is the one who has seen the most rocks”



Www.geoventures.org
facebook.com/GSAGeoVentures

Gary Lewis
gleiws@geosociety.org

Davida Buehler (field camps)
dbuehler@geosociety.org



AUSTRALIA GEOVENTURE– June 15-July 6, 2014

This is an amazing experience to see the very best geosciences of Australia. Examine the geology of the Sydney Basin, see the Blue Mountains, snorkel in the Great Barrier Reef, visit Uluru, see the remains of ancient volcanoes and tour through some of the oldest caves in the world. Contact Gary Lewis.



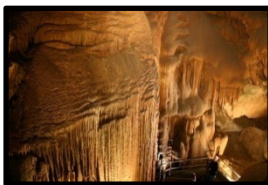
ILLINOIS BASIN FIELD CAMP– June 5-19, 2014

This field camp is packed with spectacular geology of the Illinois Basin in LaSalle County. During this trip, you'll visit the LaSalle Anticline, tour the 505 foot deep Viper Coal Mine, examine a Silurian Reef rich with fossils, and visit “ground zero” for the frac sand within the St. Peter Sandstone. As will all of our field camps, you will collect rock and fossil samples to take back to your classroom. Contact Davida Buehler



ROCKY MOUNTAIN FIELD CAMP– June 21-26, 2014

Discover some of the most fascinating geology in the continental U.S. Examine and interpret rock outcrops. Create a stratigraphic column. Tour one of the most technologically advanced mines in the world. Split shale and look for fossils. Soak in mineral hot springs. Visit the site where the Bone Wars took place. Go to the top of Pikes Peak. Learn about some of the most explosive volcanic eruptions that took place in Colorado. Collect rocks, minerals and fossils. Contact Davida.



MAMMOTH CAVE FIELD CAMP– July 14-19, 2014

Come explore Mammoth Cave with GSA! Mammoth Cave is the world's longest cave with over 390 miles of mapped passageways. This field camp will focus on caves, karst topography mapping cave and surface features, sedimentary rocks, stratigraphy, geomorphology, groundwater and the geologic history of the region. In addition to collecting just about every major sedimentary rock, you will participate in a karst hydrology research project and conduct a dye trace test. Contact Davida.



ICELAND GEOVENTURE– July 27– Aug. 7, 2014 *Wait list only.*

Join us for an experience to introduce you to a wide range of geologic phenomenon. Explore volcanic processes, icecaps, glaciers and the interaction of active earth systems, science and human culture. Iceland is an island of contrasts; a land of glaciers, erupting volcanoes, and the midnight sun. Its uninhabited interior is comprised of an arctic desert, punctuated with mountains, hot springs, glaciers, volcanoes, and magnificent waterfalls. Iceland's rich geologic history provides the geologic enthusiast with the ultimate field experience. Contact Gary Lewis.



EXPLORE HAWAIIAN VOLCANOES GEOVENTURE– Aug. 6-13, 2014

This seven-day field trip on the Big Island of Hawaii will introduce you to plate tectonics, hot spot volcanism and the geologic features and hazards associated with living on an active volcano. We will discuss volcanic edifices, eruption styles, magma evolution and see various types of lava flows, lava lakes, tree molds and lava trees, fault scarps, rifts, craters and calderas. Contact Gary Lewis.