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PRESIDENT'S MESSAGE

Spring and summer!

There's nothing like a field season ahead of you to get excited as a geoscience instructor. Maybe you are planning to attend a summer field trip, visit a national or state park, organize a fall field trip, or help out a group of scouts earn their badges. Or maybe you are planning to attend the NAGT Earth Science Educators Rendezvous in Madison! In any case, there is opportunity for growth and discovery both in our knowledge base and also in our professional relationships.

Personally, I will be teaching a field mapping course for the first time in a geologically-complex area of southwestern Montana. It will stretch my geological understanding and build new relationships as we delve into the field projects that are planned. I've heard it said many times, the best geoscientists are the ones that have seen the most geology and it's clear that I have a long way to go. But the journey is often fun and adventurous. So dust off those field boots, pack that poncho, slather on that sunscreen, and snap those photos that make it real for you and for your students.

Now, to highlight a couple of items from this year. First of all, we had a good turnout at the NAGT supported sessions at the NC-GSA meeting in Champaign, IL. A big thanks to all of those involved through organization and contribution. I also wanted to extend a note of greatest appreciation to Dr. Katie Lewandowski. Katie has served the Central NAGT Section as an officer and part of the executive committee for many years.

During that time, her work has established the consistency and the continued presence of NAGT in our region. Her dedication and attention to detail has carried the section through and primed it for growth. If you would like to be involved in that continued growth and regional presence please feel free to contact me.

Otherwise, all the best for a fruitful field season ahead.

C. Renee Sparks

UPCOMING EVENTS!

GSA National Meeting
Denver, CO
September 25-28, 2016

Please consider contributing to the following sessions at GSA

Abstract Deadline is July 12, 2016

T80. Implementing Discovery-Based Research Experiences in Undergraduate Geoscience Courses and Curricula
Laura A. Guertin, Jeffrey G. Ryan, Preston Lee Phillips, Patricia Manley, Jay Labov, Kerry Brenner
Sponsored by the Council on Undergraduate Research Geosciences Division; GSA Geoscience Education Division

This session builds on a 2015 convocation report from the National Research Council to address models, evidence, approaches, and challenges with students and university leadership for promoting discovery-based research experiences in the geosciences (Geoscience Education)

T81. Increasing Engagement and Improving Learning Outcomes for Geology Students: Using Cognitive Science to Inform Geoscience Teaching and Learning

Shondricka Burrell, Allison J. Jaeger
Research findings in cognitive science can inform the development of effective teaching and learning strategies in the geosciences in three key areas

fundamental to the discipline: evidence-based reasoning, conceptual change, and spatial visualization.
(Geoscience Education | Geoscience Information/Communication)

T82. Methodological Decision Making in Geoscience Education Research

Katherine Ryker, Nicole LaDue, Todd D. Ellis, Kim A. Cheek
Sponsored by the GSA Geoscience Education Division; National Association of Geoscience Teachers

Geoscience education research uses quantitative, qualitative, and mixed-methods approaches. Presenters are encouraged to highlight the rationale for methodological decisions and how decisions about research methods impact conclusions that can be drawn from their results.

(Geoscience Education | Geoscience Information/Communication)

T83. Place as an Organizing Principle in Geoscience Education
Sadredin C. Moosavi, Steven Semken, Diana Dalbotten

Sponsored by In-situ

This session will explore the use of place as an organizing principle for teaching geoscience content while enhancing learner connections to locations in which they live. K–16 and informal educators welcome!

(Geoscience Education | History and Philosophy of Geology | Geoscience Information/Communication)

T84. Planning to Make a Difference through the Next Generation Science Standards: Part 1 K–12 Initiatives

Michael J. Passow, Belinda E. Jacobs, Carla McAuliffe, Cheryl L.B. Manning

Sponsored by the National Earth Science Teachers Association; GSA Geoscience Education Division; National Association of Geoscience Teachers Geo2YC Division; GSA Geology and Society Division

As states and school districts prepare to adopt/adapt the Next Generation Science Standards (NGSS), it becomes important to consider how changes in Earth and Space Science will be different this time from past educational initiatives.

(Geoscience Education | Geoscience and Public Policy)

T85. Planning to Make a Difference through the Next Generation Science Standards: Part 2 Undergraduate and Teacher Training Initiatives

Michael J. Passow, Belinda E. Jacobs, Carla McAuliffe, Cheryl L.B. Manning

Sponsored by the National Earth Science Teachers Association; GSA Geoscience Education Division; National Association of Geoscience Teachers Geo2YC Division; GSA Geology and Society Division

What adaptations should Higher Education and Informal Educational Institutions create to facilitate implementation of the NGSS? How best can teacher preparation programs empower pre- and in-service educators with skills to succeed under the NGSS?

(Geoscience Education | Geoscience and Public Policy)

T86. Supporting Geoscience Student Transfer Between Institutions and Transitions into the Workforce: Pathways for Success

Eric M.D. Baer, Norlene R. Emerson, Allan Ludman

Sponsored by the GSA Geoscience Education Division; National Association of Geoscience Teachers; National Association of Geoscience Teachers Geo2YC Division; GSA Geology and Society Division

Topics might include advising/support strategies; bridge programs; cross-institutional collaborations including recruitment and student research projects, field trips, and 2YC–4YCU faculty interactions; articulation agreements; curricular and extra-curricular experiences, transfer patterns, and impact on broadening access.

(Geoscience Education | Geoscience and Public Policy)

T87. Supporting Students with Disabilities: Innovations and Strategies for Geo-Success

René A. Shroat-Lewis, Wendi J.W. Williams

Sponsored by the International Association for Geoscience Diversity; GSA Geoscience Education Division; National Association of Geoscience Teachers; National Earth Science Teachers Association; National Association of Geoscience Teachers Geo2YC Division; NAGT Teacher Education Division

This session is aimed at sharing effective geology classroom (fully face2face, hybrid, online formats), laboratory, and field experience strategies for students with disabilities (to include Universal Design applications, too).

(Geoscience Education | Geoscience Information/Communication)

T88. Technological Innovation in Geoscience in Two-Year Colleges

Callan Bentley, Joshua Villalobos, Peter J. Berquist

Sponsored by the GSA Geoscience Education Division; International Association for Geoscience Diversity; National Association of Geoscience Teachers Geo2YC Division

This session explores the successful application of technology in geoscience courses at two-year colleges. Topics may include virtual field experiences, drones, facilitating access for students with disabilities, infusing technology into field work, and mobile apps.

T89. Bringing the Horse to Water and Getting It to Drink: Obstacles and Innovative Ways of Getting the Religious Public to Consider Scientific Evidence

Carol A. Hill, Gregg R. Davidson

Sponsored by the GSA Geology and Society Division; GSA Geoscience Education Division

New ways of thinking and approaches to outreach are needed to overcome entrenched science-skepticism among the religious public. Presentations are welcome that go beyond “trying the same thing harder” to make inroads or that provide new insights into the culture.

T93. Use of Geoscience Data Resources in Education and Research (Posters)

Christopher A. Badurek

Sponsored by the Geoscience Information Society

This poster session examines the effective use of geoscience data resources in successful teaching or research activities, including repositories, federal data centers, academic research centers, and/or commercial sources for data visualization, mapping, or analysis.

(Geoscience Information/Communication | Geoscience Education)

T94. Women and Geology: Who Are We, Where Have We Come From, and Where Are We Going?

Beth A. Johnson

Sponsored by the Association for Women Geoscientists; GSA Geology and Society Division

This session explores the roles of women in geology, perceptions on their positions and their work, the challenges faced professionally and personally, and those steps designed to encourage diversity and success among incoming geology students.

(Geoscience Information/Communication | History and Philosophy of Geology)

Please consider attending:

**Earth Educators' Rendezvous
Madison, WI
July 18-22, 2016**

Registration closes June 15, 2016. Please check out the website: http://serc.carleton.edu/earth_rendezvous/2016/overview.html/. Events include workshops, oral and poster sessions, teaching demonstrations, panel discussions, plenary talks, and working groups. This year we will be expanding our audience to welcome a mix of college faculty, graduate students, and K-12 teachers from all disciplines who are interested in improving their teaching about Earth. Our program is designed to appeal to everyone from the instructor attending their first Earth education themed meeting, to experienced STEM education researchers, to administrators who want to better support students in their programs. Among many options, participants can learn about new teaching approaches, discover opportunities to get involved in research programs, prepare for an academic career, or discuss how to approach teaching and learning challenges in their classroom. Consider joining the Rendezvous for 2- or 3-day blocks, or for the whole week-long (5-day) event.

**Great Lakes Section SEPM/Central Section
NAGT Field Trip
2016 Fall Field Conference
Glacial and postglacial sedimentation in
Northwest Lower Michigan
Tentative Dates: October 14-16, 2016
Led by Kevin Kincare (USGS)**

This field trip will examine the late Wisconsin glacial deposits in Leelanau and Benzie Counties of the northwestern lower peninsula of Michigan, including Sleeping Bear Dunes National Lakeshore. The dominant surficial landforms in this area are from the glacial advances during and after the Port Huron stadial

(~13,000 14C years B.P.) as well as reshaping the land by post-glacial processes, especially glacial Lake Algonquin 10,300 14C years B.P. and dune formation after 5,000 14C years B.P. Of particular interest will be new excavations in the highly lobate Manistee moraine that show glacial till at the bottom, lacustrine deposits in the middle, and cobble gravel at the top. If finding armoured mudballs in unconsolidated sediments is your idea of a good time, if climbing ripples are your favorite sedimentary structure, then put away your rock hammer and grab your army shovel because this is the trip for you. An additional (and informal) 1/2 day field trip will be offered on Friday afternoon to see deformed deltaic sediments of the Lake Border moraine for those who want to come up a bit early. It's right on the way to the main field trip area and, let's face it, how often do you get to see a giant diapir of till?

More information at <http://isgs.illinois.edu/sepm>

Questions? Please contact Kevin Kincare (kkincare@usgs.gov).

Thank you for helping our membership grow!

Our membership in the Central Section has almost caught up to the Eastern Section. That section has been the leading section recently, but we have the opportunity to jump ahead. Please encourage your colleagues to become members! Thanks for being great leaders in Geoscience Education!


Mastodont Dig in Your Classroom!

Need a new idea for your geology lab or class? Want to have your students do real science? Then you need to take advantage of the Aurora Mastodont Project-Matrix Analysis Project. We will send to you enough sample free (you pay postage when you return it to have your entire class process screenwash from the 2004 Mastodont dig. After sorting through the screenwash additional paleoenvironmental interpretations can be included as part of the lab. For more information, contact David Voorhees, dvoorhees@waubonsee.edu or go to <http://www.waubonsee.edu/faculty/dvoorhees/MastodontMatrix/index.html>

Coursera Online Class

Coursera is now offering "Planet Earth . . . And You" from the University of Illinois at Urbana-Champaign. It includes dozens of downloadable ~5-minute videos explaining geological concepts that may be of use as supplementary material for students. The course is free and will be offered periodically. Access is through: <https://www.coursera.org/course/earth>

Nominate an Outstanding Earth Science Teacher!



Sponsored by the National Association of Geoscience Teachers (NAGT), the Outstanding Earth Science Teacher (OEST) Awards are 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. Ten national finalists are selected, one from each NAGT regional section and many state winners are recognized too. Individuals may apply themselves or nominate a colleague for the award.

Nominate online at:
<http://nagt.org/nagt/awards/oest.html>

Read bios of inspirational OEST winners and nominate someone you know before May 1st:
<http://nagt.org/nagt/awards/oest/2015.html>

**OUTSTANDING EARTH SCIENCE TEACHER
 AWARD 2016
 CENTRAL SECTION AWARD WINNER**

Troy J. Simpson
 Glen Raymond School
 Watseka, IL

The Central OEST committee chose 8th grade Earth Science teacher, Troy J. Simpson, (troy.simpson@watekaschools.org) from Glenn Raymond School in Watseka, Illinois as the NAGT Central Section OEST 2016 winner. The committee was particularly impressed with Troy's pioneering and innovative use of technology in his classroom, his ability to incorporate outdoor fieldwork and the relevance of earth sciences into his classroom, and his passion for science education. Mr. Simpson enthusiastically gives of his time in the classroom, in his community and in his profession, serving on educational boards and presenting at many local, regional, and state

conferences on science curriculum, strategies and activities.

**NAGT Central Section OEST State Award
 Winners 2016**

Ohio- DeAnn O'Toole- Pattison Elementary, Milford, OH

The Central OEST committee chose DeAnn O'Toole (otoole_d@milfordschools.org), 4th grade math and science teacher from Pattison Elementary in Milford, Ohio as the NAGT Ohio OEST state winner for 2016. The committee was particularly impressed with DeAnn's implementation of experiential learning, her ability to incorporate outdoor fieldwork to inspire her students, and her passion for earth science education.

Minnesota- Jody Bergeson – Twin Bluff Middle School, Red Wing, MN

The Central OEST committee chose Jody Bergeson (jrbergeson@rwps.org), 5th grade math and science teacher from Twin Bluff Middle School, Red Wing, Minnesota as the NAGT Minnesota OEST state winner for 2016. The committee was particularly impressed with Jody's implementation of inquiry-based, hands-on lab experiences, her ability to incorporate outdoor fieldwork to inspire her students, and her passion for earth science education.

Thanks to Susan Wolf and the OEST Committee for their hard work evaluating applications for the award.

NAGT: New Memberships or Renewals

New or renewing members may find the application form at: <http://nagt.org/nagt/membership/index.html>

ANNOUNCING *Dorothy LaLonde Stout* **NAGT PROFESSIONAL DEVELOPMENT GRANTS**



In honor of Dottie Stout's outstanding work and lifelong dedication to Earth Science Education, NAGT will award three grants in support of the following activities:

- Participation in Earth science classes or workshops
- Attendance at professional scientific or science education meetings
- Participation in Earth science field trips
- Purchase of Earth science materials for classroom use

One grant of \$500 will be awarded to a Community College Faculty

One grant of \$500 will be awarded to a Community College Student

One grant of \$500 will be awarded to a K-12 Educator

Eligibility: Community College Faculty and K-12 teachers who teach one or more Earth science courses and Community College students actively pursuing a career in the Earth sciences are encouraged to apply for these awards.

Application Process: Interested applicants are asked to submit a 1-2 page proposal describing how the grant will be used to support their professional growth in, or classroom teaching of Earth science. The application may be found at <http://nagt.org/nagt/programs/stout.html>

Applications must be received by April 1 with awards being made by April 15th.

Central Section NAGT Business Meeting Fee Application

(available to K-14 professionals)



The North-Central NAGT section may pay the cost of the section NAGT business luncheon to K-14 professionals (NAGT members and non-members) who

- a) cannot afford the cost themselves, and
- b) make a presentation on any topic at the NC GSA conference that year.

Name *(please print)* _____

Mailing Address _____

City _____ State/Province _____ Zip/Postal Code _____ Country _____

Phone (____) _____ Fax (____) _____ E-mail _____

Check one: ☐ College Faculty at _____

☐ Teacher at _____

☐ Other at _____

Date of North-Central GSA meeting: _____

Name of presentation at meeting: _____

Description of presentation: _____

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