NAGT CENTRAL SECTION

http://www.nagt.org/nagt/organization/central/index.html Spring 2013

UPCOMING EVENTS!

GSA North-Central Section
47th Annual Meeting
Kalamazoo, Michigan
2-3 May 2013

Please note: the **Central Section NAGT Business Lunch** registration did not get into the original conference registration. The meal will be a deli sandwich buffet. The cost is $14.40. Please come.

Rock and Mineral Samples: Please bring your local rock and mineral samples to the next sectional GSA conference, Central Section NAGT booth to share with other instructors. Bring labels with name, location, and other pertinent information.

The Central NAGT section will pay the cost of the section NAGT business luncheon to K-14 professionals (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. **Application forms are at the end of this newsletter.**

Events sponsored by NAGT Central Section

Theme Sessions

1. Teaching and Learning Earth Science: K-16 Educational Pedagogy - Katie Johnson Lewandowski, Eastern Illinois University (kjohnson4@eiu.edu) and Steve Mattox, Grand Valley State University (mattoxs@gvsu.edu)

This theme session encourages abstract submissions from K–16 educators who would like to share insights into teaching and or learning of earth-science content. The goal for this session is to attract presentations showcasing a myriad of activities using diverse instructional strategies. As educators, many of us search for interesting and effective activities that will help our students to learn better and more efficiently. We also welcome abstracts

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PRESIDENT'S MESSAGE

Recently, I have been thinking about informal science education quite a bit. Some of you may now be thinking, "What is informal science education?" Others of you may have an idea about what it is. In the literature, there doesn't seem to be a consensus regarding the definition of the term informal science education (Hofstein and Rosenfeld, 1996). Researchers have produced lists of the characteristics of formal vs. informal science learning (Wellington, 1991). I would guess that we are all pretty familiar with the characteristics of formal science learning. So, you ask, what are some of the characteristics of informal science learning? Here are a few: nonassessed, unevaluated, voluntary, learner-centered, social intercourse, less directly measurable outcomes, etc. (Hofstein and Rosenfeld, 1996). Seeing these, you might argue, informal science learning occurs in my traditional classroom. This may be true. I believe that we can enhance our traditional classroom learning by incorporating informal science learning in many different forms.

What are some ways in which to incorporate informal science education opportunities into your curriculum? Of course, there are geology field trips and field experiences, which many of us eagerly incorporate into our classes. There are also trips to museums, science centers, zoos, and aquariums. You might occasionally incorporate the use of full-length movies or documentaries in your classroom. These are good uses of informal science learning.

We have our work cut out for us. We want our students to love earth science, or at least appreciate it. I think by using all of the resources available to us; including visits to museums; watching documentaries about water resources, oil productions, and climate change; and taking students out into the field; our job is made easier. Offering students voluntary opportunities to learn more is a good way to find out who's interested. It's not always the best students. Yes, we want to the best students

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to become earth scientists, but, in addition, we want to encourage the students who are most enthusiastic about the material.

Best regards,
Katie Johnson Lewandowski

References

Hofstein, A., and Rosenfeld, S., 1996. Bridging the Gap Between Formal and Informal Science Learning. Studies in Science Education, v. 28, p. 87-112.

Wellington, J., 1991. Newspaper Science, School Science: Friend or Enemies? International Journal of Science Education, v. 13, p. 363-372

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from researchers offering insights into cognition and processing of earth-science information that will help us to teach more effectively.

2. Research in Earth Science Education - Heather Petcovic, Western Michigan University (heather.petcovic@wmich.edu) and Sandra Rutherford, University of Wisconsin, Madison (srutherford@wisc.edu)

What do we know about how people think, feel, perceive, and understand about Earth? This session will share research on the teaching and learning of earth science in classroom, laboratory, field, and informal settings. Qualitative, quantitative, and mixed methods studies describing cognitive and affective factors that impact learning as well as studies of specific curricula, pedagogy, or interventions will be highlighted.

3. Working with Pre-Service Teachers – Issues and Ideas - Kyle Gray, University of Northern Iowa (kyle.gray@uni.edu) and Anthony Feig, Central Michigan University (anthony.feig@cmich.edu)

Many college and university-based earth scientists interact with pre-service teachers on a regular basis. Regardless of whether they are pre-K, elementary, or secondary education majors, many of our students have received little or no exposure to earth-science topics before attending our courses. As a result, they often enter our classrooms afraid of teaching earth science. Such barriers to teaching pose a challenge to earth-science faculty, but they can be addressed through a variety of creative pedagogies and theoretical frameworks. This session is intended for anyone who teaches pre-service teachers in any capacity including (but not limited to) content courses and methods courses. We welcome any presentations that discuss new lesson ideas, research regarding pre-service populations, theoretical approaches to teacher training, or strategies for improving K–12 earth-science education in general.

4. **Innovative Earth Science Teacher Professional Development** - Mark Klawiter, Michigan Technological Univ. (mfklawit@mtu.edu), Carol Engelmann, Emily Gochis, Erika Vye, Heather Petcovic, Stephen Mattox. Quality geoscience professional development (PD) experiences that address the needs of the participating teachers will improve teaching and learning in K–12 earth-science classrooms and promote student interest in geoscience careers. This session will present innovative methods of PD for teachers in the classroom and in the field and invites presentations that highlight programs or workshops offering high-quality PD opportunities in the geosciences, as well as presentations from teacher participating in these opportunities.

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

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The **Cleveland Museum of Natural History** and the **Kirtlandia Society** are pleased to announce the availability of ten paid summer internships for college undergraduates to work with curators and staff on research in the fields of:

Invertebrate Paleontology/Geology
Mineralogy/Sedimentology
Paleobotany/Paleoecology
Archaeology
Botany
Invertebrate Zoology/Entomology
Ornithology
Vertebrate Zoology
Wildlife Resources
Physical Anthropology

Further information on this program, the **Kirtlandia Society Research Internships** (formerly known as the "Adopt-A-Student Program"), can be found on the CMNH website, at http://cmnh.org/site/AboutUs/CareerOpportunities/Kirtlandia/TypesofProjectsResearch.aspx
and
http://www.cmnh.org/site/AboutUs/CareerOpportunities/Kirtlandia.aspx

Subject heading: 2YC geoscience instructor survey

Greetings colleagues:

Geo2YC is a Division of the National Association of Geoscience Teachers (NAGT) for professionals who have

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a shared professional interest in geoscience education at Two-Year Colleges. Since we began in July of 2011, one of our prime goals is to understand the diversity of geoscience education at Two-Year colleges in the United States.

We have just made available on the NAGT website (http://nagt.org/nagt/divisions/2yc/survey.html) a short, 15 minute, survey that will begin to collect information about the variety and diversity of programs and geoscience experiences at community colleges, city colleges, and junior colleges across the United States. This survey is for full- or part-time instructors of geoscience (geology, oceanography, meteorology, geography, astronomy, earth science), or their representatives (administrator, coordinator, etc) at Two-Year colleges. If you are not involved with geoscience instruction at a Two-Year college, we would be grateful if you could forward this announcement to a colleague who is. If you know of a colleague at a Two-Year college who may not have received this announcement, please forward this to them.

Our apologies if you have received duplicates of this announcement.

Thank you so much in advance. Your completing this survey will not only help Geo2YC to define our needs, goals, and best practices, as well as to provide data in our important role as advocate of geoscience education at Two-Year colleges.

If you have questions about this survey, please contact David Voorhees at dvoorhees@waubonsee.edu. This survey is sponsored by the Geo2YC Division of the National Association of Geoscience Teachers.

Geo2YC website -
http://nagt.org/nagt/divisions/2yc/index.html

Respectfully,

David Voorhees
Past-President Geo2YC

NAGT: New Memberships or Renewals

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

There are no OEST Awardees for 2012!

Outstanding Earth Science Teacher (OEST) Award – Call for Nominations

Nominations for the OEST award are being accepted during this year. **Please** take the time to nominate a deserving teacher in your state or encourage them to nominate themselves. If you have any questions or need additional information, contact Beth Johnson (beth.a.johnson@uwc.edu). All nominations must be submitted online at the NAGT website, http://nagt.org/nagt/programs/oest.html . The deadline for 2013 OEST Award is May 15th.

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:

Mail to:

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