



Newsletter

Winter 2012-13

EXCITING CONTENTS!

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Presidential remarks

Dear colleagues,

Greetings my friends. My apologies for the delay in getting this letter out. I put most of it together back in December, but just got crazy busy. As I sit watching the robins outside my window and finishing this letter on the vernal equinox, I have many fond recollections of 2012. I'm pleased to say that it was another great year for NAGT-Southwest! As part of our work, NAGT-SW teachers travelled the globe. Some of us attended GSA, AGU, and other meetings to give presentations (see page 4). We had a fun and educational field conference in New Mexico last June (see page 5), and we're excited about our next field conference, which will be held in Arizona at the Grand Canyon, May 31 to June 2, 2013 (see page 7).

I encourage my fellow NAGT-Southwest members to participate in our organization and in the activities we offer. Please contact us if you wish to become involved with the leadership. NAGT-SW officers are elected every year at our field meeting, so nominate a friend or yourself today! In fact, right now, we're in need of someone to take over the Treasurer duties from Dr Steve Semken, who has served us so well for so long -- thank you, Steve, for your years of service!

My best wishes to you all for a healthy, happy, and safe 2013 school year and field season!

-- Dan.

In the V.P. Zone

NAGT-SW Vice President, Dr Meredith Wilson, has informed me that she is really excited about coordinating the upcoming field conference in her adopted home state of Arizona. VP Wilson is a seasoned professional, having put together numerous previous trips, so we can look forward to another flawless performance this time round. The date has been set for May 31 to June 2, 2013. You can get more information about the trip and how to register at: http://nagt.org/nagt/organization/southwest/2013_spring_tri.html

The Secretary's Corner

NAGT-SW Secretary, Ms Laura Lukes, reports that she and OESTA Captain Kraft are helping coordinate the upcoming field conference in their beloved Arizona. Thus, we can expect the trip to grow even better from the deft touch of these brilliant ladies.

On another note, Secretary Lukes gave what attendees called a "magnificent presentation" at the National Science Teachers Association regional conference in Phoenix on December 7th. By all accounts, the audience was riveted as she discussed the development and use of virtual fieldtrips for enhancing classroom learning.

Tales from the Vault

NAGT-SW Treasurer, Dr Steven Semken, has announced that he will not run for re-election this year. On behalf of everyone in our section, I wish to thank him for his many years of excellent service! Of course, this means that we are now looking for a new Treasurer to take over this very important duty. Please contact us if you would like to nominate yourself or someone you know.

Call for nominations for the 2013 OESTA

Do you know or work with an outstanding earth science teacher? If so, please nominate him/her for the NAGT-SW section Outstanding Earth Science Teacher Award. The nomination process is easy and can be filled out here: <http://nagt.org/nagt/programs/oest-nom.html>. If you have any questions, please don't hesitate to contact our OESTA Coordinator, Kaatje Kraft at: vanderhoeven@mesacc.edu. Nomination deadline is May 15th, 2013.

******* here's a tasty tip from Kaatje: tell your teacher you'd like to nominate him/her and have them help you with some of the items on the nomination form *******

mystery pic!

The location of the previous mystery pic was Black Dragon Canyon in the San Rafael Swell.

Congrats to G.W. Hayduke for his sharp eye and keen wit! -- hope you're enjoying your really cool prize! Correctly identify the location of this photograph and you'll be entered in a drawing to win a really cool prize!



Recent work by NAGT-SW members

a sampling of presentations from the 2012 GSA annual meeting held last November in Charlotte:

- UTILIZING AN ARTIFICIAL OUTCROP TO SCAFFOLD LEARNING BETWEEN LABORATORY AND FIELD EXPERIENCES IN A COLLEGE-LEVEL INTRODUCTORY GEOLOGY COURSE
-- *WILSON, Meredith J.*
- GOING TO THE SOURCE: STUDENT PERSPECTIVES ON FACTORS THAT INFLUENCE LEARNING IN COLLEGE-LEVEL INTRODUCTORY GEOLOGY COURSES
-- *LUKES, Laura A., and MCCONNELL, David A.*
- ONLINE RESOURCES FOR GEOSCIENCE INSTRUCTORS AT TWO-YEAR COLLEGES
-- *MCDARIS, John R., LARSEN, Krista, BAER, Eric M.D., BLODGETT, Robert H., HODDER, Jan, MACDONALD, R. Heather, KRAFT, Katrien J. van der Hoeven, and MAIER, Mark*
- *EARTHSCOPE NATIONAL OFFICE EDUCATION AND OUTREACH PROGRAM: 2012 UPDATE ON ACTIVITIES AND BROADER IMPACTS*
-- *SEMKEN, Steven, ARROWSMITH, R., GARNERO, E., FOUCH, M.J., TAYLOR, W.L., BOHON, W., PACHECO, H., ROBINSON, S., SCHWAB, P., and DICK, C.*
- LEVERAGING RESOURCES: AGI-ASU-NASA TRIAD MODEL FOR EARTH AND SPACE SCIENCE TEACHER PROFESSIONAL DEVELOPMENT
-- *PACHECO, Heather, TAYLOR, Wendy L., SEMKEN, Steven, BENBOW, Ann E., MABLY, Colin, MACGREGOR, Ian, ANBAR, A.D., and BURLESON, Winslow*
- INFUSING RESEARCH INTO AN UNDERGRADUATE PETROLOGY COURSE TO PROMOTE SCIENTIFIC LITERACY
-- *GONZALES, David A., and SEMKEN, Steven*
- TRANSIENT METAZOAN REEFS IN THE AFTERMATH OF THE END-PERMIAN MASS EXTINCTION
-- *BRAYARD, Arnaud, STANLEY, George D. Jr, VENNIN, Emmanuelle, OLIVIER, N., BYLUND, Kevin G., JENKS, Jim, STEPHEN, Daniel A., HOFMANN, R., GOUDEMAND, N., and ESCARGUEL, Gilles*

NAGT-SW annual field conference 2012

We held our annual field conference in June this past year. Expectations were high following the wildly successful previous gatherings.

For 2012, we headed to the Land of Enchantment, and of course we were not disappointed... Ms Bonnie Dodge, the NAGT-SW 2011 OESTA winner, went far beyond the call of duty and was instrumental in making this year's trip such a success. We visited some spectacular spots in an extraordinary, ambitious, two-part, four-day field trip in New Mexico, where the northwestern portion of the state was the focus of part one and the southeastern portion the focus of part two.



We had a wonderful start by going to El Malpais National Monument & National Conservation Area. Mr Paul Yoder served as our local expert; he's a ranger and interpreter for the BLM -- and apparently the recipient of a NAGT student grant a few decades ago. His knowledge of the geology and cultural history of the region was impressive. The educational hikes around the BLM station and the lava tubes were fantastic, and we were especially grateful for the wisdom, humor, and pedagogical suggestions that he shared with us. Thanks to Ms Star Gonzales (of the Grants Chamber of Commerce), Ms Mary Savacheck, and the other fine folks at the mining museum in Grants, we enjoyed a special evening event there, learning a lot about the geology and history of the region, including a fascinating presentation by a retired miner who now volunteers at the museum. Mr Joe Lister, the long-time manager of an old uranium mine northwest of town, led us on an extensive tour of the facilities, discussing the technical aspects of mining while he and VP Wilson exchanged stories of the gritty details of life underground.

Fortunately, we made time for the mineral museum at New Mexico Tech in Socorro, which had a fabulous collection of minerals and fossils, and where we discussed ideas for incorporating museum trips in our teaching. Ms Susan Welch, the director of the museum, kindly gave us some educational materials, such as a mineral "starter kit" for students, turquoise mineral samples, museum literature, and a few gorgeous photographs. We also had fun on our short cultural side excursions to Lincoln and Roswell.



The visit to the world-famous caverns of Carlsbad National Park was of course one of the highlights of our trip, and OESTA Caption Kraft offered photography tips for capturing dramatic images. The beauty and solitude of White Sands National Monument was a perfect way to wrap it up as Secretary Lukes thrilled us with some spontaneous and amazing aeolian acrobatics.



Finally, I'd like to note that a generous donation to NAGT-SW coordinated by Mr Dan Kump on behalf of the Homestake Mining Company of California helped to cover much of our expenses. Thus, we were able to keep participant costs low, despite the remarkable agenda. We're looking forward to the 2013 trip to Arizona (next in our rotation), and we've already got the plans set...

NAGT-SW annual field conference 2013

We're excited to announce the NAGT-SW annual field conference for 2013: please make plans to join us in the Copper State this year! Yes, we'll be visiting some spectacular spots in a special multi-day trip in Arizona. Highlights will include a pilgrimage to that world-famous geological mecca: The Grand Canyon! During the trip, participants can look forward to a fun and educational experience on the South Rim, and rumor has it that a few of the more adventurous in the group may enjoy a hike down into the canyon. VP Wilson has already reserved a campsite at the South Rim for us. As usual, registration fees for the trip will be very low -- **only \$20!** The dates have been set for **May 31 to June 2**, and you can find more details about the trip at:

http://nagt.org/nagt/organization/southwest/2013_spring_tri.html

Past field trips have been tremendously successful, and we want more of our members to experience the joy of geologizing with Merry and the Mancos Mafia. We'd especially like to see more of our K-12 teachers participate; in fact, we feel so strongly about it that we're offering free geology postcards (while supplies last) and a limited number of free teaching materials to the first ten K-12 teachers to sign up for the field conference.

Of course, we always welcome NAGT members of other sections to join us as well.

To reserve your space on the trip, please REGISTER at:

http://nagt.org/nagt/organization/southwest/2013_spring_tri.html

Professional development opportunities

On the Cutting Edge is pleased to publicize this year's workshops and events. Many good opportunities. Please help us by forwarding this announcement to others who might be interested. NOTE: Application deadlines for some workshops/events are coming up soon, some in **early January**.

The workshop schedule gives links to the individual workshop and event web pages (including the online application/registration forms). <http://serc.carleton.edu/NAGTWorkshops/workshops.html>

FACE TO FACE WORKSHOPS:

Teaching Hydrogeology, Soils, and Low-T Geochemistry in the 21st Century

June 5-9, 2013, with optional field trip on June 5 - University of New Mexico, Albuquerque, NM

Conveners: Barbara Tewksbury, Gary Weissmann, Devin Castendyk, Steven Driese, Jennifer Roberts, and Gary Smith

Application deadline: February 15, 2013.

Teaching Oceanography

June 18-20, 2013, with optional field trips on June 17 and 21 - City College of San Francisco, Chinatown/North Beach Campus

Conveners: Katryn Wiese, Petra Dekens, Jan Hodder, Dave Mogk, Kristen St. John, and Al Trujillo

Application deadline: March 1, 2013.

Workshop for Early Career Geoscience Faculty: Teaching, Research, and Managing Your Career

July 28-August 1, 2013, with an optional visit to NSF August 2 - AGU, Washington DC

Conveners: Rachel Beane, Michael Wyssession, and Richard Yuretich

Application deadline: March 8, 2013.

Preparing for an Academic Career in the Geosciences (a workshop for grad students & post-docs)

July 7-10, 2013 - University of Colorado, Boulder, CO

Conveners: Heather Macdonald, David Budd, and Rachel O'Brien

Application deadline: March 8, 2013.

WEBINARS, WEBINAR SERIES, AND A VIRTUAL JOURNAL CLUB:

Teaching Stable Isotope Geochemistry in the Earth Sciences Virtual Webinar Series

Events on: January 22, January 29, February 5, February 12, and February 19, 2013

Conveners: David Mogk, Zach Sharp, and Monica Bruckner

Registration deadline: January 7, 2013.

Effective Strategies for Undergraduate Geoscience Teaching Webinars

Events on: January 31, February 20, March 27, April 10, 2013

Conveners: Heather Macdonald, David McConnell, and Barbara Tewksbury

Application deadline: 1 week prior to each.

Pursuing an Academic Career in the Geosciences Webinars

Virtual sessions January to April, 2013

Conveners: Heather Macdonald and Elizabeth Ritchie

Application deadline: 1 week prior to each.

Measuring Student Success: Virtual Journal Club on Assessment Methods

Events on: February 19, March 19, April 16, & May 14, 2013

Conveners: Ellen Iverson, Joshua Caulkins, Bruce Herbert, and Karen Viskupic

Registration deadline: January 7, 2013.

Geophotography Virtual Webinar Series

Events on: February 26, March 5, March 19, & April 2, 2013

Conveners: David Mogk, Jerry Magloughlin, Ellen Bishop, Steve Weaver, and Marli Miller

Application deadline: February 1, 2013.

Interpreting and Teaching with Tomograms Virtual Webinar Series

April-May, 2013 (4 2-hour sessions on Wednesdays in April [3,10,17,24], 2 in May [22,29])

Convener: Michael Wyssession

Application deadline: March 1, 2013.

ONGOING PROJECTS: Classroom Observation Project

Cutting Edge is sponsoring a research project to observe geoscience teaching in classrooms across the US.

This project makes use of the Reformed Teaching Observation Protocol (RTOP). You can find out more information on the website about observing a class or volunteering to have your class observed.

<http://serc.carleton.edu/NAGTWorkshops/certop/index.html>

ON THE CUTTING EDGE, a professional development program for current and future geoscience faculty, is sponsored by the National Association for Geoscience Teachers and supported by grants from the NSF Division of Undergraduate Education. We encourage you to visit the Cutting Edge website and check out the many online resources. <http://serc.carleton.edu/NAGTWorkshops/index.html>

Heather Macdonald, College of William & Mary

David Mogk, Montana State University

Rachel Beane, Bowdoin College

Katryn Wiese, City College of San Francisco

Cathy Manduca, Carleton College

Barbara Tewksbury, Hamilton College

David McConnell, North Carolina State University

Michael Wyssession, Washington University

Student opportunities

NAGT Student Scholarships for Field Study

Each year, NAGT makes several \$500 awards to undergraduate students to facilitate their study of field geoscience. These awards, previously given to students who attend a traditional summer field camp, are now available for students attending field-based courses at any time of year. The intent of the awards is to support students' participation in intensive field courses in any aspects of geoscience (including geophysics, soil science, hydrology, *etc.*) that focus on students practicing skills of field observation, data collection, analysis and synthesis. Awardees are selected based on the importance of the field experience in meeting their educational and career goals, the quality of the field aspects of the course, and the importance of the financial award in allowing them to participate in the program. In addition, the committee endeavors to select awardees that expand the diversity of people studying geosciences in the field and a [collaboration with the Association of Women Geoscientists \(AWG\)](#) funds two additional awards specifically for women.

Scholarship Application:

Students must have a GPA of 3.0 or higher to apply. To do so, please complete the [Application Form](#).

You will be asked to provide:

A 250-word essay explaining how the field-camp experience fits into your long-term academic and career goals.

A transcript of all your college work (an unofficial transcript is acceptable).

Names and contact information for two instructors who are acquainted with your work and are willing to write letters of recommendation for you (noting your ethnic origin, if applicable).

We will contact them directly and ask them to submit their recommendations.

The deadline for receipt of applications is February 14th.

Please, take a moment to check out the NAGT Field Scholarship website, and download the [publicity flyer](#).

If you're a student, then you should definitely look into it; and, if you're a faculty member, please encourage your students to check it out!

General announcements

something from our neighboring sections:

from NAGT-FW:

The **Far Western Section** will hold its next meeting in conjunction with the meeting of the Cordilleran Section of the Geological Society at CSU Fresno in May 2013. Details will be announced soon.

from NAGT-PNW:

The 2013 **Pacific Northwest Section** Annual Section Meeting will be in Coos Bay, Oregon, hosted by Southwestern Oregon Community College & Ron Metzger. Details will be announced soon.

the last word

Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three...

-- *Confucius*