



Geoscience Education Division Newsletter

May 2013

From Your Newsletter Editor

Greetings Division members! It has been nearly two years since we provided a GED Newsletter to you (how can this be?!?). We have a **new logo**, new **leadership**, and a variety of recent and upcoming events about which to inform you. Thus below is our **May 2013** edition for your enjoyment.

If you have items you would like included in the next newsletter, please send them to me at mhafen@usf.edu.

Mark Hafen
University of South Florida

GED: State of the Division

One of the most important lessons I learned as a graduate student is the importance of gaining a long-term view when seeking to understand any system. It is with this perspective that I want to share some of the key events, issues and opportunities that the Geoscience Education Division has encountered over the last few years, since this newsletter last traveled the trails of cyberspace to your inboxes. Some of the highlights:

- ★ *Raising the Profile of Geoscience Education within GSA* - As the largest division within GSA, contributing approximately 10% of the abstracts at the annual meeting for the past few years, GED has played the role that general education courses often do in academic department: the elephant in the room that has the ability either to facilitate harmony and prosperity or to cause great stress. From being one of the annual meeting organizer's bigger headaches, GED has become a leading division in its efficiency. The Division's profile has been raised by this success, and GED has been singled out for praise for its engagement with the GSA's strategic planning process. The strong presence of educational themes and initiatives throughout the last 2 strategic plans would have been substantially more difficult to achieve without active input from the division and its members.
- ★ *2YC Support* - With half of all the nation's college students spending at least part of their educational career in 2-year colleges, their importance to overall efforts to achieve a geoscientificallly literate society cannot be understated. GED has been working with the 2YC division of NAGT and GSA's leadership to find ways to assist 2YC faculty in gaining access to professional development and research support from the federal research establishment. While much work remains to be done, the unique burdens and barriers to the full participation of 2 year college faculty are becoming clear to faculty and program managers working in the

more traditional research venues of comprehensive universities, graduate programs and funding agencies.

- ★ *Geoscience Educator's Reception* - The growing vitality of GED led to the division being asked to organize the popular geoscience educator's reception held during the annual meeting. Planning for this year's reception, Sunday Night from 6 - 8 PM, is well underway and we are looking forward to a great opportunity for our members to interact over light refreshments in a LARGE open space, seeded with standards/banners to help like minded people find partners for discussion in this pleasant gathering.
- ★ *Fiscal Health* - Growth of the division and the membership's approval of a \$2 per year dues increase has put the Division in a good financial position, with full funding of the Biggs Award endowment achieved and a significant increase in funds being made available for student travel awards.
- ★ *Awards* - At last year's GED/NAGT Luncheon, GED announced the creation of a new award to be offered in the memory of Iris Moreno Totten (*note: see separate article below*). Fundraising for this award is beginning in earnest. This will be the second major award in the Division, reflecting its growing strength and the passion of its members. While we have been successful in building our capacity to give awards, we have not done as well at publicizing the awards that we have. We in the officer corps will be relying on ***you*** to nominate peers worthy of recognition for both the Biggs and Totten awards!
- ★ *The Power of One: YOU!* - As I look forward to my final months as a Division officer, I really want to share the importance of individual efforts to making the Division function and grow. I will freely admit that I did not know fully what I was getting into when I ran for 2nd Vice-Chair 3 years ago, nor could I have anticipated having to jump straight to the chair's role last year. Despite these challenges, I have been amazed at how much an individual willing to raise his or her voice and give of him or herself can achieve. GSA is of the right size where a motivated person with a good idea can still influence the direction of policy and help move the Society forward. The dedicated people who work full time in Boulder or elsewhere providing their expertise from across the country and world can move our profession forward in significant ways...but only if the rank-and-file GSA members are prepared to stand up and give of themselves. Let me take this opportunity to encourage you to become involved not just in GED, but across the world of GSA. Your efforts will not be in vain!

Dean Moosavi - Past Chair, GED

Updates to Cochise College Geology Resources

The Cochise College Geology Homepage – <http://skywalker.cochise.edu/wellerr/aawellerweb.htm> – has been designed as a one-stop educational resource for teaching physical geology. In addition to large photographic collections of minerals, crystals, and rocks there is also an Illustrated Physical Geology Vocabulary arranged on a chapter-by-chapter basis that parallels topics presented in physical geology textbooks. There are also more than 400 short articles on almost all aspects of geology that have been created by students of Cochise College.

A major new addition is a collection of more than 300 organized geology YouTube videos which instructors with classroom projectors can immediately access in their classrooms. Also supporting physical geology instruction are photographic virtual geology field trips and a large collection of geology cartoons to lighten up instruction (Opal's Pals).

There are more than 12,800 web pages in this website and over 10,900 copyright free photographs. This website is much more than just physical geology; there are photo collections of fossils, meteorites, and gemstones. For those interested in the geology of their own state there is a large collection of links arranged on a state-by-state basis, with a special category on Arizona geology.

In the past 8 years, nearly 3 million visitors from 210 countries have visited this website. The quickest access is to Google either "Cochise College Geology" or "Roger Weller".

Roger Weller
Cochise (AZ) College

Update: The Iris Moreno Totten Award Fund

The Geoscience Education Division and GSA Foundation will be reaching out to GED members in the months ahead of the Annual Meeting to encourage your donations to a teaching award honoring our colleague Iris Moreno Totten. The Iris Moreno Totten Award will be given each year at the annual meeting. The award will recognize outstanding research in the area of geoscience education and cognition. Details on the selection process will be announced this Fall prior to the annual meeting.

Our goal is to announce that we have raised \$25,000 in gifts and pledges at the 125th anniversary annual meeting in Denver. Iris was a fearless teacher and brilliant researcher who gave freely of herself to assist both students and colleagues to advance our understanding of how people learn about the Earth and the field of geoscience education overall. She was not afraid to tread the waters of controversy in pursuit of an inclusive geoscientificallly literate society. We believe establishing this award is a fitting way to honor her contributions to our profession.

Please take time to read and reply to appeals from the Foundation and give as generously as you are able. Gifts and pledges of up to 3-years may be made via the GSA Foundation secure website: <http://www.gsafweb.org/makeadonation.html>, or send checks to GSA Foundation, PO Box 9140, Boulder, CO 80301 MF: Totten Award Fund

Contact Chris Tallackson, Director of Development at the Foundation, if you have questions about how to make a gift: (303) 357-1007 or ctallackson@geosociety.org

Dean Moosavi - Past Chair
Rochester (MN) Community Technical College

GSA Annual Meeting Sessions

Diversity-related sessions being held at GSA 2013

The International Association of Geoscience Diversity (IAGD) is pleased to announce sponsorship for the following technical sessions being held during the Geological Society of America (GSA) Annual Meeting, October 27-30, 2013, in Denver, Colorado, USA. Both of the following sessions seek to promote past, present and future perspectives of enhanced diversity in the geosciences. Please note that this year is the 125th anniversary of GSA, and therefore the focus of these two sessions includes all historical perspectives of diversity. If you, or someone you know, has conducted research or created resources aimed at broadening participation in the geosciences, or is interested in the future of geoscience workforce diversity, you/they should consider submitting an abstract to these sessions.

For more information, please feel free to contact any of the conveners listed below.

Session T128: *Historical Perspectives and Modern Approaches of Access and Inclusion in the Geosciences*

Geoscience students and educators are encouraged to disseminate current and historical research findings and instructional experiences that promote the enhancement of diverse participation in the geosciences through increased access and inclusion. Sponsors: GSA Geoscience Education Division; International Association for Geoscience Diversity; National Earth Science Teachers Association; National Association of Geoscience Teachers; GSA Diversity in the Geosciences Committee

Conveners: Christopher Atchison (catchison@gsu.edu) and Sharon Locke (slocke@siue.edu)

Session T143: *Geoscience Across Cultures and Communities: Benefits and Challenges of Diversity*

The session is on people and practices that have contributed to our increasing understanding of the importance of the role of diversity in the geoscience profession. Sponsors: GSA Geology and Society Division; GSA Geoscience Education Division; GSA Diversity in the Geosciences Committee; National Association of Geoscience Teachers; Association for Women Geoscientists (AWG); National Association of Black Geologists and Geophysicists (NABGG)

Conveners: Marilyn J. Suiter (msuiter@nsf.gov) and Richard C. Berg (rberg@illinois.edu)

Session T117: *Developing and Sustaining Thriving Geoscience Programs and Departments: Strategies and Examples from Two-Year and Four-Year Colleges and Universities*

Strategies for developing and sustaining thriving geoscience programs are varied across institution types, yet much can be learned from shared successes. Suggested topics include issues related to faculty, including adjuncts, students, building curriculum, and administration. This session is co-sponsored by the National Association of Geoscience Teachers

Suzanne T. Metlay (suzanne.metlay@wgu.edu)

NAGT Geo2YC Executive Board

Session T137: *Undergraduate Research Experiences at the Introductory Level in Two- and Four-Year Colleges*

Research with 1st and 2nd year geoscience students? Some might think this is a preposterous idea. However, there are some who are providing research experiences for their introductory geoscience students, and even to their non-major General Education students. If you have assignments or projects for your introductory geoscience or General Education students that are, or simulate, the process of geoscience research that lasts for a class, or an entire semester, we want to hear about them! A "research experience" can be where students are asked to work mostly, or completely independently or in groups, to gather and interpret geoscience data. These research experiences are designed to expose students to geoscience research, and develop scientific ways of knowing. These research experiences may bring students to the geoscience community, or expose them to new ideas and ways of thinking.

Please share how you are engaging your students by incorporating research in your geoscience classes by contributing an abstract to *T137: Undergraduate Research Experiences at the Introductory*

Level in Two- and Four-Year Colleges at the 2013 Geological Society of America meeting in Denver. This session explores successes and challenges in implementing research or research experiences applying scientific methods with their first- and second-year students at their institution. Projects of all types and length are welcome. For further information or questions contact Kaatje van der Hoeven Kraft (vanderhoeven@mesacc.edu) or David Voorhees (dvoorhees@waubonsee.edu). Abstracts can now be submitted at <http://community.geosociety.org/2013AnnualMeeting/Home> until Tuesday, August 6th.

Session T133: *Teaching Controversial Subjects in K-16 Geoscience Classrooms: Balancing the Rights and Roles of Students, Instructors, Parents, Scientists, Industry, and Community in Producing a Scientifically Literate Society for the 21st Century*

Dean Moosavi and Don Duggan-Haas proposed this session, hoping to draw on the diverse experience and wisdom of our community in addressing a growing problem in geoscience education. Just as our nation has become increasingly polarized politically, increasing incivility and outright hostility to diverse viewpoints have intruded into our science classrooms. Whether the topic is the teaching of deep time and the fossil record, long time areas of societal discord to the more recent public controversies surrounding anthropogenic climate change and fracking for oil and natural gas, K-16 science teachers and students are finding themselves caught in the vice between the warring parts of our society. The pressure causes many to simply avoid controversial subjects entirely, undermining both society's scientific literacy and ability to resolve these conflicts rationally.

Our session is designed not to focus on specific content on what should or should not be taught in any of these subjects, but rather on techniques and strategies which can be used to insure that constructive debate can occur in the K-16 classroom in an inclusive and safe fashion regardless of one's specific beliefs on any particular subject. As such, we invite a wide diversity of colleagues from across the geoscientific disciplines and the worlds of history and policy to contribute to our session and a concluding panel discussion. Experts able to speak to the teaching of the geologic time scale, climate change, fossil record/evolution, and fracking are particularly sought. We also hope that many of you who cannot present will attend our session and offer your thoughts and insights. Those seeking more information should contact Dean Moosavi at smoosavi@charter.net or Don Duggan-Haas at dugganhaas@gmail.com for more information.

Your GED Officers and Key Contacts

Chair:	Don Duggan-Haas , Museum of the Earth at the Paleontological Research Institution, dugganhaas@museumoftheearth.org
First Vice-Chair:	Elizabeth A. Heise, University of Texas-Brownsville, elizabeth.heise@utb.edu
Second Vice-Chair:	Julie C. Libarkin, Michigan State University, libarkin@msu.edu
Sec.-Treasurer:	Christopher L. Atchison, Georgia State University, catchison@gsu.edu
Past Chair:	Sadredin C. ("Dean") Moosavi, Rochester (MN) Community Technical College, smoosavi@charter.net
Newsletter Editor:	Mark R. Hafen, University of South Florida, mhafen@usf.edu
GSA Council Liaison:	Lisa D. White, San Francisco State University, lwhite@sfsu.edu
GED Web Site:	http://www.geosociety.org/divisions/ged/
GED on Facebook:	http://www.facebook.com/#!/group.php?gid=386803165827