

# NMGS Newsletter

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## PRESIDENT'S MESSAGE

Barry S. Kues

As the first decade of the 21<sup>st</sup> century winds down, NMGS has completed a busy year in 2010. The purpose of this newsletter is to highlight the year's activities and to note some events that are scheduled for the future. The mission of NMGS, broadly speaking, is to promote interest in the geosciences generally and in the geology of New Mexico particularly, and to support geoscience education, and study and publications on the geology of the state. The four core activities that contribute towards this mission are the Spring Meeting, Fall Field Conference, a robust program of scholarships and research grants supporting geoscience students at New Mexico's colleges and universities, and production of publications relating to the geology of the state. Because few of the current 600+ members of the Society are involved in all of these activities, I will touch upon each of these areas below and mention some additional subjects.

First though, on behalf of the Executive Committee I thank all of you who value the Society's activities sufficiently to renew your membership year in and year out. And a special thanks to all of you who donate to the scholarship funds and contribute your time and effort toward the Spring Meeting and Fall Field Conference. These would simply not be possible without your dedicated support. We are always interested in your thoughts and suggestions regarding all that NMGS does and how the goals of the Society may be better carried out.

### General Information

The day-to-day activities of NMGS are managed by the Executive Committee, elected by the membership at the end of each year. The EC acts to ensure that all of the Society's programs are conducted successfully, on time, and within budget. Current members of the Committee in addition to myself are Kate Zeigler (Zeigler Consulting and UNM), past president; Nelia Dunbar (NMBGMR), treasurer; and Greg Mack (NMSU), secretary. The vice-president's position is vacant, owing to Charles Thorn's resignation in August because of extraordinary job-related responsibilities. We thank Charlie for his contributions to the Society as a member of the EC. Normally each officer stands for election to the next position at the end of the year, with a new secretary joining the committee. This sequential movement from secretary through to past president ensures that each member of the EC masters a particular segment of the Society's functions each year, and provides effective institutional memory for the Society. Rather than filling two new positions next year, the EC believes that in the interest of stability and an orderly progression from office to office, the past president and president should continue on for another year, so that the treasurer and secretary may advance to vice-president and treasurer, respectively, with a new secretary coming on board as usual. Virginia McLemore (NMBGMR) has agreed to stand for election for secretary in 2011. The ballot containing the slate of candidates for the EC that you will

all receive near the beginning of the year reflects these recommendations. Please take the time to review the ballot when you receive it and vote for the candidates of your choice (room for write-in candidates for each office is included on the ballots).

The main sources of annual income for the Society are membership dues, sale of publications, and registration fees for the Spring Meeting and Fall Field Conference. The bulk of this income is expended on new publications (generally one new guidebook each year), and in paying the costs of the Spring Meeting and Fall Field Conference (which may or may not show a small profit each year). Some funds are also allocated to New Mexico Bureau of Geology and Mineral Resources personnel who are allowed by Director Peter Scholle to perform essential duties for the Society (we have no paid staff of our own). For the past few years, income has slightly exceeded expenditures, and the Society's financial condition has been steady and good even through the economic uncertainties of the past few years.

With regard to income, membership fees will increase in 2011, the third year of a planned three-year schedule of modest increases, to \$25 for regular members and \$175 for life members. Membership in the NMGS continues to be a great bargain compared with the dues for other professional societies.

Publication sales are the largest component of the Society's annual income. This includes sales of past editions of the guidebook as well as the most recent one, and other publications currently in print, such as the Geologic Highway Map (> 1000 sold this past year) and Special Publication 11 – *The Geology of New Mexico* (~ 100 sold this year). All of the Society's publications may be ordered from the NMGS web site (<http://nmgs.nmt.edu/publications/home.cfm>), and of course are available at NMGS meetings as well as at local and regional meetings of other geological organizations, through the much-appreciated efforts of Kitty Pokorny, April Brunson, and Connie Apache.

This year, with the considerable assistance of webmaster Adam Read, we have made the complete contents of the first 25 guidebooks available for free downloading from the web site, and are working to make available the abstracts of all papers published in later guidebooks. We anticipate that this will make our publications more visible to search engines (and thus to the geoscience community in general) and improve accessibility as electronic versions of publications become ever more important. We will be watching online downloads carefully for the next two years to see if they have an adverse effect on publications sales. What we do know is that the sale of publications has declined somewhat since 2008, possibly because of the general downturn of the economy. The Society, led by its publications committee, is currently considering possibilities and concepts for new NMGS publications, and plans in 2011 to come to a decision on at least one new title. A leading contender, first proposed by a member, is a volume profiling geologists who have made notable contributions to the study of New Mexico geology through the past 150 years. Members are encouraged to nominate geologists who might be included in such a volume. You are also invited to let the EC know of your suggestions for other volumes that NMGS might consider publishing, on subjects not covered by the current literature on New Mexico geology.

Another important part of the NMGS enterprise is the NMGS Foundation. The Foundation was formed by NMGS in 2003 to manage scholarship funds and other assets and donations, to preserve the non-profit status of the Society, and to shelter the funds from any liabilities faced by NMGS and its Executive Committee. More information is available on the front pages of the annual membership booklet, which you will be receiving soon. The Foundation is governed by a board of directors elected annually by the membership of the Society. I wish to thank this year's board (Virgil Lueth, John Shomaker, Laura Crossey, Tim Lawton, Tony Benson, and Charles Thorn)

for their wise stewardship of the Foundation's assets, allowing the Society to maintain its support of student scholarships and other geoscience-related activities at a level unaffected by the recent economic downturn. A special thanks to Virgil Lueth, a member of the board of directors for the past five years, and its president for the past four years, who is retiring from the board at the end of this year. A ballot for the 2011 board of directors will be sent out towards the end of the year.

### **Scholarships and Grants**

The Society has always placed great emphasis on supporting the education and research of geoscience students at colleges and universities across New Mexico. We accomplish this through the awarding of a variety of scholarships and grants in aid of research throughout the year. Students are also supported with free NMGS memberships, a 35% discount on all NMGS publications, and subsidies for attending the Spring Meeting and Fall Field Conference. These awards are derived from interest generated by funds – much of them donated by past and present NMGS members – managed by the NMGS Foundation. The funds available for these awards have remained constant over the past few years, as have the number and amounts of these awards. Grant proposals are judged by a committee, chaired by Robert Myers, and scholarships are determined by recommendations from the students' academic departments. In 2010 the Society awarded more than \$40,000 in scholarships and grants, plus more than \$10,000 in the various subsidies noted above. Fall Field Conference scholarships will be listed in the FFC section below. We take great pleasure in listing all of the 2010 student award recipients here.

*Frank E. Kottowski Research Award (\$2500)* – Matthew Zimmerer (NMT)

*Graduate Research Grants (total = \$13,023)* – E. Bauer (NMSU), C. Clinkscales (NMSU), C. Dimond (NMSU), B. Cron (UNM), S. Mason (UNM), A. Prewisch (UNM), L. Sherson (UNM)

*Lucille H. Pipkin Undergraduate Research Awards (Total = \$7523)* – J. Hecker (NMSU), G. Jennings (NMSU), J. Falconer (UNM), M. G. Garcia (UNM), B. S. Dixon (San Juan College /UNM), H. J. Lane (NMHU)

*Robert Wellnitz Memorial Scholarship (\$1000)* – Matthew Zimmerer (NMT)

*Beverly Wellnitz Memorial Scholarships (\$500)* – Edward Bauer (NMSU), Kelsey McNamara (UNM)

*Lucille H. Pipkin Senior Scholarships (\$3000)* – James Carnes (ENMU), Adam Brister (NMHU), Annalise Riggins (NMSU), Santiago Flores (NMT), Tara Aran (UNM)

*Lucille H. Pipkin Book Scholarships (\$150)*

ENMU – Katherine Hamilton, Ryan Jackson, Casey Loofbourrow

NMHU – Robert Bailey, Rachell Petrucha, Nathan Wells

NMSU – Amelia Hayes, Patricia Liggett, Lucas Middleton

NMT – David Butler, Paige Czoski, Edward Kember

San Juan College – Alexander Bays, Nakita Jack, Thomas Murphy

WNMU – Leslie Griffith, David Hall, Lodi Meurs

UNM – Christina Batson, Chanel Dailey, Alexandra Pickel

*Outstanding Spring Meeting Student Paper/Poster Awards (\$100)* – Bethany Theiling (UNM; paper); Francisco Reyes (UTEP), Joshua Faulconer (UNM) (poster, tied for first place)

### **Spring Meeting**

The 2010 annual Spring Meeting was held on Friday, April 15, in the Macey Conference Center, on the New Mexico Tech campus in Socorro. The meeting was

organized by Shari Kelley and Kate Zeigler (general chairs) and Dan Koning (technical chair). The theme session covered the geology and hydrology of the Sacramento Mountains. The keynote address, *Hydrology of the southern Sacramento Mountains*, was presented by G. C. Rawling, New Mexico Bureau of Geology and Mineral Resources. More than 100 people participated and a total of 49 oral and poster presentations were given.

### 2010 Fall Field Conference

The 61<sup>st</sup> annual Fall Field Conference (FFC) was held on September 22-25 and featured three days of field trips examining various aspects of the geology of the Four Corners region. Headquarters for the first two days was Cortez, Colorado, and for the third day, Farmington, NM. Many thanks to Jim Fassett and Kate Zeigler for organizing an outstanding conference. Some highlights were the first day's field tutorial on Jurassic stratigraphy and paleoenvironments led by Fred Peterson and Christine Turner; a



Jim Fassett and Kate Zeigler at Stop 1, Day 3 near Farmington.

thrilling ride up a steep, winding mountain road in the La Plata Mountains near Durango to the Mayday gold-silver mine on the second day; and discussions of Late Cretaceous-Paleocene stratigraphy and the possibility of Paleocene dinosaurs on the third day. Putting together a field conference typically begins at least two years before its scheduled time, and involves much detailed planning, road-logging, and arrangement of all of the logistics (transportation, banquet, barbecue, daily lunches, etc.), not to mention production of the accompanying guidebook.

In addition to the organizers, who devote hundreds of hours to the conference, numerous other individuals assist in this endeavor. Virgil Lueth, longtime managing editor for NMGS, takes submitted papers, road logs, and figures and blends them into the guidebook for the conference, which then becomes an important and timely reference on the geology of the conference area. Connie Apache and

Kitty Pokorny as always managed registration and publication sales with a high degree of efficiency. Shannon Williams and Mark Mansell kept everyone well fed and hydrated

at the drink truck. Gina Rhone saw to the design and sales of the now-traditional conference tee-shirts.

Thanks also to all of the authors of guidebook papers and road logs, to the speakers at each of the stops, and to the intrepid group of N.M. Highlands flag people.

Fumiyasu Arakawa (aka Fumi) presented a well-received after-banquet talk on paleo-Indian sites in the Four Corners area.

Total attendance at the conference numbered 138, including the 22 students listed below whose expenses were covered by NMGS FFC scholarships.



BBQ at Bruce Black's home near Farmington.

*Fall Field Conference Scholarships (\$150 + registration fee waived):*

ENMU – James Carnes, Katherine Hamilton

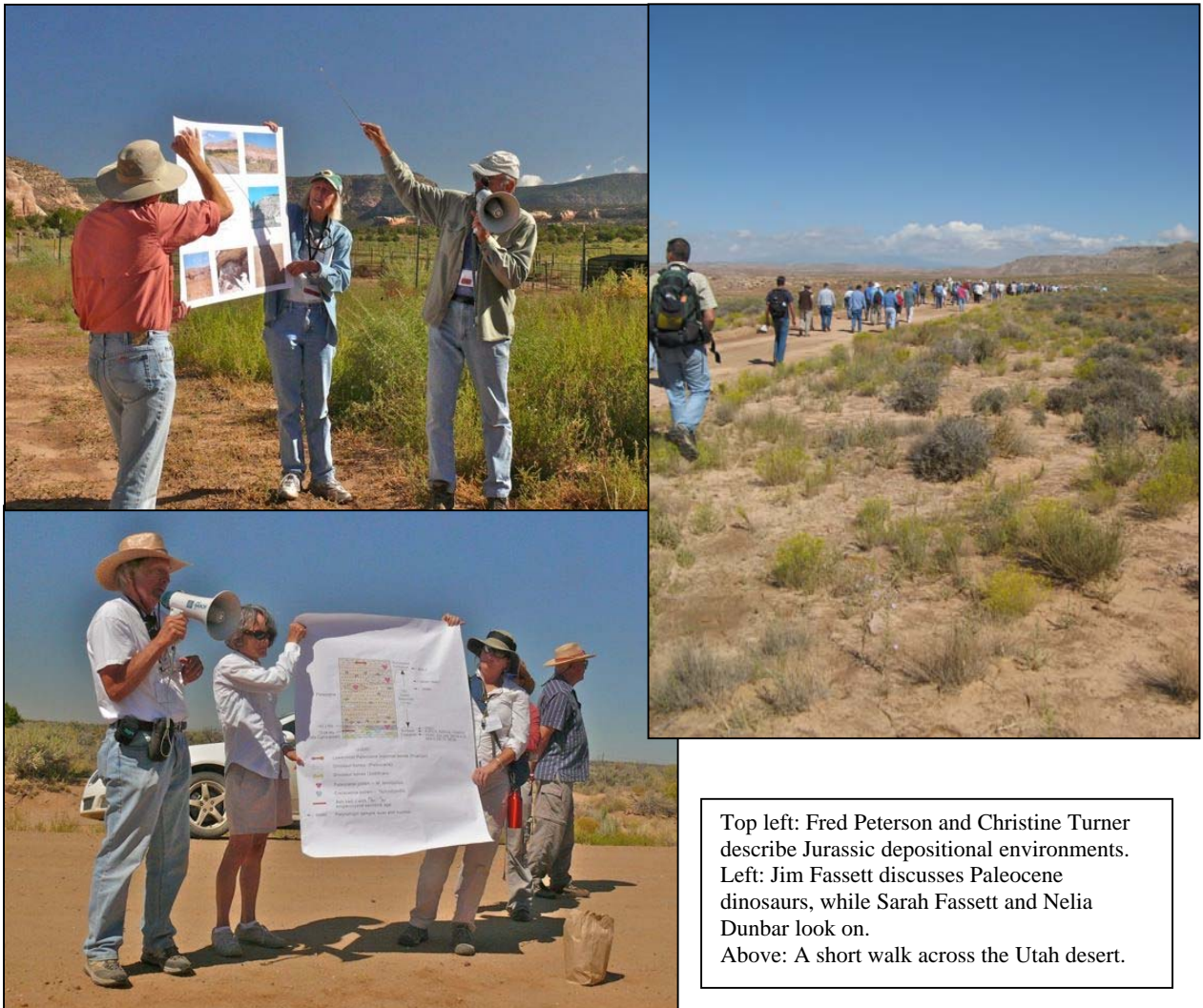
NMHU – Danielle Cedillo, Rachel Petrucha, Nathan Wales + Adam Brister, Sal Sena, Rhonda Trujillo (flag people, registration waived)

NMSU – Tara Jonell, Patricia Liggett, Sean Scott, Austin Shock

NMT – Sara Drueckhammer, Shari Houston, Phil Miller, John Nybo, Matt Zimmerer

San Juan College – Francesca Benally, Timothy Mason, Katrina Powell

UNM – Kevin Hobbs, Kelsey McNamara



Top left: Fred Peterson and Christine Turner describe Jurassic depositional environments. Left: Jim Fassett discusses Paleocene dinosaurs, while Sarah Fassett and Nelia Dunbar look on. Above: A short walk across the Utah desert.

**2010 NMGS Honorary Member – Shari Kelley**

Each year at the Fall Field Conference NMGS honors one member for extraordinary contributions to the Society over the years. This year we honor Dr. Shari Kelley, Field Geologist and Web Information Specialist with the N. M. Bureau of Geology and Mineral Resources and adjunct professor in the Department of Earth and Environmental Sciences at New Mexico Tech. Shari attended her first NMGS field conference as an undergraduate student at New Mexico State in the late 1970s, and so it is especially gratifying to acknowledge her long association with the Society with an honorary membership more than 30 years later. One of her main research interests has been using fission-track thermochronology to elucidate tectonic and landscape histories of the

Southwest, but she has also become an expert on New Mexico's stratigraphic and volcanologic records, and indeed on the geology of the entire state. In addition to numerous research papers, she has become one of New Mexico's most prolific geologic mappers; since 2001 she and coauthors have produced published geologic maps for 15 7.5-minute quadrangles, mostly in the Jemez Springs area, and several more are on their way for the Sacramento Mountains. She also maintains the "*Frequently asked questions*" and "*Virtual geologic tours*" portions of the Bureau's web site, writing fluently about the geology of many parts of the state in terms a layperson can understand.

Shari's contributions to NMGS have included major organizing and guidebook editing efforts for the 2007 conference in the Jemez Mountains, a similar effort underway for the 2011 conference, co-organizer of several spring meetings, four years on the executive committee and current co-chair of its publications committee. Her commitment to the Society has been steadfast, generous, and strong, to the extent that current members of the executive committee and others continue to rely upon her long experience and wise counsel concerning Society matters. Shari, this honorary membership thanks you in a small way for all that you have contributed to our understanding of New Mexico geology and to NMGS.

### Upcoming Events

Several events scheduled for 2011 are worth your attention, and are listed below.

**Student Grant-in-Aid Proposals** for research grants, the Kottlowski Research Award, and the Pipkin Undergraduate Research Awards must be submitted electronically or postmarked by **Friday, Feb. 18, 2011**. Details and application forms for these awards are available on the NMGS web site (<http://nmgs.nmt.edu/scholarships/home.html>).

The **Annual Spring Meeting** will be held at the Macey Center in Socorro, on Friday, April 15. Karl Karlstrom and Laura Crossey (UNM) have agreed to organize a technical session devoted to an interdisciplinary view of the ways that Earth's surface systems of magmatism, topography, faulting, and groundwater in the New Mexico region are affected by and interact with mantle dynamics and a fault-segmented lithosphere. More information and deadlines for presentation abstracts will be communicated early next year.

The **2011 Fall Field Conference** (September 28-October 1) will focus on the geology of the southern Tusas Mountains and Ojo Caliente area, and will be based in Espanola. The conference will explore Oligocene-Pliocene volcanic and volcanoclastic rocks, Santa Fe Group sediments, late Cenozoic landscape evolution, Proterozoic stratigraphy and tectonism, and kyanite and pegmatite mines, among other features of this part of north-central New Mexico. The trip leaders are Dan Koning, Karl Karlstrom, Scott Aby, Kirt Kempter, and Shari Kelley. All members are encouraged to contact the leaders to lend a hand as volunteers or as contributors to the guidebook. Papers for the 2011 guidebook are due by March 14, 2011, to Dan Koning; see the NMGS web site for details on the conference and guidebook submission instructions.

**Future Fall Field Conferences** are set for 2012 and 2013. In 2012 we will examine the geology of Sierra County (organizers Spencer Lucas, Virginia McLemore, Karl Krainer, Karl Laumbach, and Justin Spielmann). 2013 will feature a trip along I-40 from Albuquerque to Flagstaff, AZ, with stops to examine some of the spectacular geologic features along this route (organizers, Steve Semken and Kate Zeigler). If you have an idea for a future field conference and are willing to help organize it, please contact a member of the Executive Committee.