UNIVERSITY OF WYOMING DEPARTMENT OF GEOLOGY & GEOPHYSICS



**Department Head Paul Heller** 

COLLEGE OF ARTS AND SCIENCES Department of Geology and Geophysics (307) 766-3386 geol-geophys@uwyo.edu

**GEOLOGY.UWYO.EDU** 

## FROM THE DEPARTMENT HEAD

s newly appointed Department Head, I want to thank you all for your interest and support of the Department through The years. Admittedly, taking over the helm has been a bit of a daunting task, what with increased bureaucracy and tightened budgets in recent years at UW. But, truth be told, Geology & Geophysics has done well as an exemplar of academic success, research productivity, and collegiality at UW. As such we have weathered most storms fairly well. In part, this is no small thanks to the donations and support supplied by our alumni, donors, and friends across the state and country. Even in these hard times, I am delighted to represent the faculty, staff, and students, all of whom work relatively hard, complain relatively little and in general make me look good to the university administration. The Department has reached an all-time high in personnel this year, including 24 faculty, eleven staff, eight post-docs and researchers, 71 graduate students and 179 undergraduate majors.

I'd be remiss not to make a note of special thanks to former Department Head **Art Snoke**, who has done an admirable job guiding the Department for the past half dozen years and has been a role model of strong stewardship during his tenure— his shoes will be hard to fill (small feet has he). Not only has he kept the ship afloat and sailing on course, but has managed to maintain his scientific productivity and teaching excellence. In fact, over the past year, Art has been awarded the Outstanding Faculty Award from the Wyoming Student Alumni Association, as well as two separate awards for teaching excellence from the College of Arts & Sciences. No doubt Art will continue contributing to the Department for many years to come.

One of the goals during my tenure as Department Head is to work at alumni relations. I have the sense that we can and should do more to reconnect with alumni. As part of this effort we are in the planning stages of having more regular alumni get-togethers in various venues. Our thoughts are to develop a three-year rotation of alumni events between Denver, when GSA meets there, and Houston, when AAPG meets there. These events will provide an opportunity to get together with the many alumni who attend these conferences. First, though, as a trial run, we are beginning to plan an evening event to be held in Denver next fall. Certainly all alumni in the greater Denver region whose address we have on file should be receiving an invitation to this event. Please keep an eye out for an invite sometime next summer. The outcome and interest in this event will determine how we plan future soirées. Regardless of these meetings, if you are ever passing through Laramie, please stop by the Department. I'd be delighted to show you around. 💠

Val L'Alle

## DEPARTMENT NEWS

## UW Raising the Stature of Graduate Education

eep within northeast Nevada's Ruby Mountains, University of Wyoming geology graduate student Karri Sicard (M.S.) uses a compass to measure the structural orientation of different rocks, and then uses a GPS unit to plot locations of her measurements and the geographic distribution of the rock units.

The information she gathers is digitized into an updated, detailed geologic map of the field area, which when compiled and interpreted helps project what is under the surface, and reconstructs the history of the strains that acted upon the mountain range.

Such field work is typical of research conducted by graduate students who contribute significantly to the university's research efforts. Faculty members attest that the heart and soul of UW research is the work done by talented students such as Sicard.



Photo: University of Wyoming geology graduate student Karri Sicard uses a diamond-tipped trim saw to prepare a schist for microscopic examination of minerals contained within a rock sample. UW is taking steps to elevate graduate education to a higher level of prominence among university priorities. (UW Photo)

While UW has recognized the importance of supporting the research and teaching activities of graduate students, it is taking steps to elevate graduate education to a higher level of prominence among university priorities.

In his fall convocation address, UW President Tom Buchanan noted, "Graduate students inject enthusiasm, imagination and commitment, all of which power the university's research enterprise. As teaching assistants they link the laboratory and the classroom and inspire and enhance undergraduate education. They are a critical link in the cascade of knowledge that makes the American research university the most sought-after college experience in the world."

To raise the stature of graduate education, UW launched a series of discussions among faculty throughout campus to identify the qualities of superior graduate programs, and determine ways to incorporate those qualities at UW.

"We have developed strategies to strengthen graduate education ranging from improving student recruitment and admission practices to establishing more comprehensive student mentoring and advising practices," says **Carol Frost**, UW Geology Professor and vice president for special projects and who leads the effort along with Andrew Hansen, associate provost. The efforts include measures such as making use of a uniform, electronic application process to enhancing department websites while optimizing them for research engines to bring UW to the top of the list when students search the web for quality graduate programs.

Sicard's search for a quality graduate experience exemplifies the type of program UW hopes to have in place for all prospective graduate students. After obtaining her B.A. degree in geology at Colorado College, Sicard, like most other potential graduate students, explored the Internet in search of a university that offered the type of educational experience she was seeking in her case, geologic mapping. Sicard identified UW Geology Professor **Art Snoke** as one of the nation's leaders in this area.

"Wyoming had a strong geology department at a time when some schools were suffering economically, and when Laramie's low cost of living was factored in, I made the right choice," she says. Frost and Hansen are confident that the new initiatives will result in more prospective graduate students taking advantage of the quality programs UW can offer them.

Increasing the number of graduate assistantships is an essential component of UW's plan to strengthen graduate education. In 2011, the Wyoming State Legislature allocated more than \$6.2 million in Abandoned Mine Land funds for energy science stipends and fellowships for graduate students. Hansen says when the six-year program is fully funded it will support about 40 students per year. There also will be higher standards for students to obtain these awards, he says, which reinforces the effort to recruit high quality students.

Additionally, Frost says, the initiatives include efforts to ensure the state-funded assistanships are allocated equitably across campus and that the individuals who receive the funding are prepared and provided opportunities to experience meaningful teaching assignments. Steps are being taken to strengthen mentoring and to provide excellent career advising to students.

Sicard mentioned that UW offered an educational experience—including research opportunities, teaching seminars and training—that has prepared her for a variety of

career choices. She says she is mulling over career options to work for industry, state government agencies, environmental consulting firms or in education.

UW G&G alumnus **Dan Jones**, who now teaches geology at Western Carolina University, echoes Sicard's emphasis on the importance of the broad-based training offered at UW. The Geology Department structured his Ph.D. workload with an emphasis on teaching, and provided him with the training and tools to become a good teacher. Frost and Hansen are certain that the initiatives to be launched at UW will result in many more students reaping the benefits of a quality graduate education.

"We expect to see many professionally satisfied students whose accomplishments reflect well on UW," says Hansen. "My goal is when they leave here and reflect on their education, they say, 'I'm glad I attended the University of Wyoming."" **\*** 

#### Rocky Mountain Rendezvous Celebrates 10th Anniversary

ach year, UW G&G alumna **Catherine Campbell** circles the dates on her calendar.

So do UW alumns **Laura Murray** and **Mark Olson**.

They know better than to miss the Rocky Mountain Rendezvous (RMR), a four-day fair hosted by the University of Wyoming and sponsored by the American Association of Petroleum Geologists (AAPG) that has evolved into one of the petroleum industry's major recruiting events.

"The Rendezvous is considered a can't-miss event for our company," says Campbell, a development geologist for Encana Oil and Gas' North Piceance Team in Colorado and one of the company's recruiters. "I think other companies feel the same way, because I see a lot of the same recruiters year after year."

"We rely on the Rendezvous," adds Murray, who will recruit for Chevron for the sixth consecutive year. "We love coming to Wyoming every year."

#### The Beginning

From humble beginnings—UW G&G Senior Lecturer and RMR coordinator **Randi Martinsen**, had to convince the AAPG to offer its support—the Rendezvous is close to outgrowing its home of the past 10 years inside the Wyoming Union and rivals the AAPG's main recruiting showcase in Houston, Texas.

One year after attracting a record 225 students from across the United States—including dozens of UW students seeking to enhance their interview skills and potentially land internships or full-time jobs—the RMR is preparing for a similar turnout at this year's event, Sept. 30–Oct. 3.

The aspiring geoscientists will have opportunities to meet with recruiters from some 25 companies. The who's-who list, in addition to Chevron and Encana, includes: Anadarko, BP, ConocoPhillips, Devon Energy, ExxonMobil, and Shell.

"We have hired students each of the three years I have recruited at the RMR and they have been some of our top recruits and developed into full-time employees," says Olson, who works as a geologist for ConocoPhillips' Gulf of Mexico Regional Team. "Randi was my thesis adviser so I'm a little partial but she has been a critical link between the oil and gas industry and UW.

"She also has been a great champion in bringing and keeping the RMR in Wyoming. I can tell you that other universities in the region would love to get the exposure of an event like the RMR."

From the beginning, Martinsen believed an AAPG job fair in Wyoming made as much sense as, well, drilling for oil in Wyoming. But she had to do some convincing.

"When I first went to AAPG with the idea, they weren't very enthused about it," Martinsen recalls with a laugh. "They said, 'No, we've got this one in Houston and that's enough."

She laughs again and adds, "Finally, I said, 'No, I'm going to do this!'"

Not even Martinsen could have envisioned the Rendezvous' transformation over the years. What began largely as a job fair has turned into a four-day event that includes short courses, workshops, presentations, a poster session and field trips in addition to the formal interview sessions.

Then there are the networking possibilities.

#### Student's Perspective

UW graduate student Lynsey Spaeth (M.S.) attended the RMR last year for the first time, gaining experience during the interview process and making connections with recruiters while helping them set up their booths.

"It's about getting your name out there and beginning to network," she says. "The experience is invaluable. An internship isn't always the end goal."



Graduate student Lynsey Spaeth (M.S.), prepares for the 2011 Rocky Mountain Rendezvous.

She cracks a smile and adds, "But an internship is really awesome if you can get one."

This year's RMR will be all about networking for **Chris Christofferson** (M.S.), a UW graduate student who recently was hired by Cabot Oil & Gas, another of the Rendezvous' regulars. His full-time employment, which followed an internship with Cabot, was born from the RMR.

"Since I just completed an internship in industry, I'm not too stressed about the RMR this year. But, in previous years, it was very nerve-wracking, especially during my first few interviews," Christofferson says. "Even if you don't get any offers, it's a very fun event and the experience of interviewing is valuable no matter where you are in your career.

"I am personally going to use the RMR as an opportunity to network this year," he says. "Cabot will be attending this year, like always, and I encourage students to come by the booth and learn about the company."

Recruiters also benefit from the Rendezvous' format, which allows for interaction with students in more informal ways, such as on the bus or at the lunch table.

One year on a field trip, Chevron's Murray met Heather Henry, who had trekked to Laramie from Montana for the RMR. She was instantly impressed, not only with Henry's depth of knowledge but her enthusiasm.

"She was just so into rocks!" recalls Murray.

That experience — on a bus en route to an oil rig—played a greater role in Chevron's decision to extend a job offer than did Henry's formal interview, says Murray.

This year, Henry will be back at the Rendezvous—as a recruiter.

"I can think of eight or nine people off the top of my head who we've hired from Wyoming," says Murray. She is one of them, a 1998 UW graduate in geophysics. "One has been here 35 years and is about to retire, so that tells you we've been going there and getting geophysicists for quite some time."

Campbell also launched her career at the Rendezvous. She landed an internship with BP in 2005, and then caught Encana's attention at the RMR a few years later.

This will be Campbell's third trip to the Rendezvous as a recruiter.

"We look forward to it every year," says Campbell, who earned her master's in geology from UW in 2007. "It's a great opportunity for us, because it's at the University of Wyoming and Wyoming is one of the states where we have our biggest operations. In the case of UW students, we're able to interview and potentially hire students who already understand the geology of Wyoming and that's especially valuable to us."

#### 10 Years Later

Ten years after struggling to establish the RMR, Martinsen has a new struggle: Finding space for everybody under one

roof. The Rendezvous' student turnout has quadrupled and industry participation doubled since about 60 students and 10 or 12 companies showed up for the first event.

"If this continues to get bigger, we're going to have to expand beyond the Union," she says.

Whatever it takes, Martinsen remains determined to bring together students and industry.

"It's really energizing to see these young students enthusiastic, eager and just so excited about their career opportunities. I get thank-you emails for weeks after the event, telling me how much they enjoyed it and what it meant to them," Martinsen says. "But it means a lot to me, too.

"Geology is fun, and petroleum geology is just so much fun. It's like detective work looking for that darn oil and gas," she says. "I had a great career. I loved my job (in industry) and I was always thinking, 'I can't believe they're paying me to do this!' So, it's truly enjoyable for me to try to link up students to jobs, because I want them to have fun, too."

Photo: Lynsey Spaeth, a Geology Department M.S. candidate, prepares for this years Rocky Mountain Rendezvous.

The 10<sup>th</sup> annual Rocky Mountain Rendezvous of geoscience students and employers was recently featured on KCWY13 news. The video may be seen on the UW Department of Geology & Geophysics' YouTube Channel at, http://www. youtube.com/UWGeology. ❖

#### Faculty and Research Notes

aculty and graduate students from the Department gave 19 poster presentations or talks at the recent annual meeting of the Geological Society of America in Minneapolis, Minn.

aculty and graduate students from the Department gave 40 poster presentations or talks at the recent annual fall meeting of the American Geophysical Union in San Francisco, Cali.

esearch Professor **Kevin Chamberlain** was recently awarded a \$120K grant from the State of Wyoming, UW/SER Uranium technologies research program for his project titled, "Enhancing bioremediation of insitu uranium aquifers through uranium and carbon isotopic tracing of biologic activity." The project is a collaboration with Cameco, Inc. and the result of the research will have applications throughout the uranium mining industry.

n August, Professors **Ron Frost** and **Carol Frost** had their textbook titled, "Essentials of Igneous and Metamorphic Petrology," accepted for publication by Cambridge University Press.

rofessor **Steve Holbrook** was recently named a 2012 Distinguished Lecturer for the GeoPRISMS program. GeoPRISMS is an NSF-sponsored program for research on continental margins. As a Distinguished Lecturer, Holbrook will give up to six lectures at universities around the country on subduction zone processes.

his past summer, Professor **Barbara John** and Associate Professor **Mike Cheadle** took part in an National Oceanographic and Atmospheric Administration (NOAA) exploration cruise to explore deep sea hydrothermal vents at the Mid Cayman Rise, one of the deepest midocean ridges in the world. The NOAA ship *Okeanos Explorer*, "America's Ship for Ocean Exploration," is the only U.S. ship assigned to systematically explore our largely unknown oceans for the purpose of discovery and the advancement of knowledge.

A process called telepresence, uses real-time broadband satellite communications and connects the ship and its discoveries with audiences ashore via a live video feed. A live news event was staged from the University of Rhode Island, with two submarines simultaneously diving on the vents at the Mid Cayman Rise and on ancient shipwrecks in the Black Sea, http://www2.turnto10.com/news/2011/aug/09/uri-sees-simultaneous-live-feeds-ocean-floor-ar-674883.

Further information about the cruise can be found at http://oceanexplorer.noaa.gov/okeanos/explorations/ex1104/ welcome.html.

rofessors **Barbara John** and **Art Snoke** both recently received awards from the UW College of Arts and Sciences. John was the recipient of the 2011 Extraordinary Merit for Research Award and Snoke was the recipient of the 2011 Extraordinary Merit for Teaching Award.

n September, a paper by Associate Professor **John Kaszuba** was published in *Earth and Planetary Science Letters*.

n August, Assistant Professor **Cliff Riebe** and Associate Professor **Kenneth W. W. Sims** gave keynotes at the annual Goldschmidt Conference in Prague, Czech Republic. Their talks were respectively titled, "Inferring process from provenance using apatite (U-Th)/He ages of coarse sediment in mountain streams," and "Do <sup>226</sup>Ra-<sup>230</sup>Th isochrons provide realistic crystallization ages?"

ssociate Professor Kenneth W. W. Sims was recently featured in the Pioneer Edition of National Geographic Explorer (Kids) Magazine for his recent work at Nyiragongo, a two-mile-high volcano towering over the eastern edge of the Democratic Republic of the Congo near the city of Goma. For more information, visit http://magma. nationalgeographic.com/ngexplorer/pioneer/1109/articles/ mainarticle.html.

Recently three different articles by Sims appeared in *Geochemistry, Geophysics, Geosystems, Marine Chemistry*, and *Geochimica et Cosmochimica Acta*.

ssistant Professor **Ye Zhang**, along with four UW colleagues, and researchers from Brigham Young University, University of Utah, and Utah State University, recently received \$5,999,878 from the National Science Foundation for their research proposal titled, "Collaborative Research: CI-WATER, Cyberinfrastructure to Advance High Performance Water Resource Modeling."

In June, Zhang also gave an invited talk in Banff, Canada, at a geoscience workshop hosted by the American Association of Petroleum Geologists. Her talk was titled, "Hydrogeochemistry & Gas Chemistry of Uinta Basin: Implication for Genesis and Migration of Unconventional Gas."

In August, Zhang also instructed an e-symposium titled, "Green River Shales: Geochemical Basin Study." The E-symposium was hosted by AAPG and was in the format of a webinar that involved Zhang broadcasting from her UW office over the internet to up to 200 geologists, geophysicists, and engineers who signed up for the course. The e-symposium consisted of a one-hour live webinar, along with material for one full day of independent study. This particular study was co-authored by Carl W. Gable, George A. Zyvoloski, and Lynn M. Walte.

The webinar described the importance of the geochemistry of formation fluids in shale gas reservoirs and discussed differences between plays. The issue of why biogenic methane formation is observed only in the upper Green River Formation in the central to northern Uinta Basin was also addressed.

A paper by Zhang titled, "Waste Gas Storage in A Deep Saline Aquifer: A Study on Parameter and Model Uncertainty," was also published in the *Journal of Hazardous, Toxic, and Radioactive Waste.* 

#### **Grad Student Notes**

n August, graduate student **Curtis Chopping** (M.S.) gave a talk at the annual Goldschmidt Conference in Prague, Czech Republic, titled, Geologic carbon-sulfur co-sequestration: Experimental investigation of a natural analogue, Madison Limestone, SW Wyoming USA," by Curtis Chopping and John Kaszuba.

raduate student **Bridget Diem** (M.S.) recently won the *Runge Award* for Best Student Presentation at the Rocky Mountain Section (RMS) American Association of Petroleum Geologists (AAPG) meeting, held this past June in Cheyenne, Wyo. Her presentation was titled, "Evaluation of Faulting Mechanisms by Fracture Analysis of Normal Faults Exposed on the Rock Springs uplift, SW Wyoming." Associate Lecturer **Erin Campbell-Stone** (Diem's advisor) and Adjunct Professor **Eric Erslev** served as co-authors of the presentation.

"I'm truly honored to receive this award and am thankful for Erin and Eric's guidance and encouragement," says Diem.

The *Runge Award* recognizes professional and scientific excellence in the student papers presented before the RMS-AAPG annual meeting, with particular emphasis on creative thinking toward new ideas in exploration. Established in 1975, the award is made to the student presenting the best paper as judged by a committee established for evaluation of papers at each meeting.

raduate student Luke Shafer (M.S.) recently received a \$2,000 grant from the Society of Petrophysicists and Well Log Analysts Foundation (SPWLAF) for the 2011–2012 academic year. The grant will support his master's project for the upcoming academic year, including software training courses in Petrel and lab/core costs.

Shafer is advised by Associate Lecturer Erin Campbell-Stone. \*

## ALUMNI PROFILE: LYNDON A. YOSE (B.S. 1984; M.S. 1986)

#### Geoscience Supervisor, Iraq West Qurna 1 Field Studies – Exxon Mobil Development Company

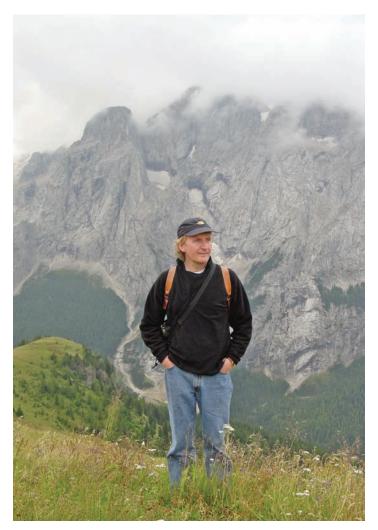
y interest in geology was sparked by growing up on a ranch in the Green River Basin of western Wyoming, near the towns of Big Piney and La Barge. I spent a lot time in the mountains and, while I had limited knowledge of geology at the time, I was intrigued by the different rock formations and how they formed.

I started at the University of Wyoming in 1979 and, after taking some introductory geology courses, declared geology as my major. I was very fortunate to have attended the University of Wyoming and to have studied under such an esteemed set professors. One of my greatest memories from undergraduate work is all the fieldtrips. I learned that, for a geologist, there is no substitute for time in the field.

I completed my B.S. degree in Geology in 1984, and stayed on at the University of Wyoming for my Master's Degree. I was exploring different thesis topics and taking graduate courses. One of the courses was taught by an enthusiastic new professor from the University of Arizona, Dr. Paul Heller. Paul was very excited about some Pennsylvanian-age outcrops he had heard about in the Death Valley region, and arranged for a field trip to the area. After visiting the outcrops we knew we had a found a great project. The outcrops were spectacular, and I loved the desert environment and camping out under the stars. The title of my thesis was "Sea level controls on deposition of a mixedcarbonate/siliciclastic gravity-flow system in the Death Valley region, east-central California." It was through this work that I became interested in carbonate rocks, which became the focus of my future studies and career.

I started my Ph.D. in 1987 with Dr. Lawrence Hardie at the Johns Hopkins University. Dr. Hardie had an active fieldbased research program focused on the Dolomites (southern Alps) of Northern Italy. I spent four summers in the Dolomites studying Triassic carbonate platforms. The title of my Ph.D. was "Sequence stratigraphy of Triassic carbonate platforms of the southern Alps, Dolomite Mountains, northern Italy." Adjusting from Laramie to Baltimore took some time, but I grew to like the city very much. Spending summers in the Dolomites was a nice escape from the summer heat and humidity.

I started with Exxon (later ExxonMobil) at Exxon Production Research in Houston in 1992. I was in the carbonate reservoir research group for three years and then transferred to Imperial Oil (Exxon subsidiary) in Calgary. I spent the next three years in Calgary working some of Imperial's classic Devonian carbonate fields. While the geology was great, the highlight was meeting a Canadian girl (and geologist), Roxanne, whom I have now been married to for 14 years. We have a son, Alexander, who is 9 years old.



Above: Yose standing in front of Triassic carbonate platforms in the Dolomite Mountains, southern Alps, Italy. Facing page, top-left: Permo-Triassic carbonates in northern Oman (Sultanate of Oman). Facing page, top-right: Family photo of Lyndon, Roxanne (wife) and Alexander (son).

In 2004, we accepted an assignment in Doha, Qatar, working on North Field, one of the world's largest natural gas fields. We spent 4 years in Qatar and enjoyed all aspects of the assignment, including traveling to many new places in the Middle East and Far East, and experiencing the Middle East culture. We returned to Houston in 2008 and I am currently working on the Iraq field studies team.

I have greatly enjoyed my experience with ExxonMobil. I have had the opportunity to work on basins and datasets from around the world, and to have worked at the interface between business and research. I owe much to the University of Wyoming, where my foundation in geology was formed. The field-based approach and focus on the fundamental concepts that was instilled at UW has served me well throughout my career.  $\diamondsuit$ 





## **ALUMNI NOTES**

lumna Nina L. Baghai-Riding (B.S. Geology, 1978; B.S. Botany, 1979) was recently promoted to full professor in the Division of Biological and Physical Sciences at Delta State University in Cleveland, Miss.

Alumnus Dwight E. Deal (M.S., 1963) is currently retired (more or less) while leading geological tours to Southwest China, the Balkans, and Big Bend of Texas for DBA Focused Tours, www.focusedtours.com.

After leaving UW, Deal did considerable graduate work at the University of New Mexico in geology and anthropology before going on to earn his Ph.D. from the University of North Dakota in 1970. Having worked as a consulting geologist, university professor, geological surveyor, and environmental geologist, Deal now enjoys traveling extensively in the karst lands of Southeast Asia and Europe with his wife Mary.

lumnus John D. Haun (M.A., 1949; Ph.D., 1953) was recently designated as a "Distinguished Trustee" by the American Geological Institution (AGI). Haun was also recognized for his 60 years of membership in the American Association of Petroleum Geologists (AAPG) and 28 years of contributing to the AAPG Foundation. Haun previously served as president for both AAPG and AGI and received the Heroy Award for Distinguished Service to AGI.

lumnus Jamey Jones (M.S., 1999) recently accepted a permanent position as a research geologist in structural geology and tectonics with the USGS Alaska Science Center in Anchorage, Alaska. Jones previously worked as an assistant professor of geology at universities in Minnesota and Arkansas. Jones' current research now focuses on the framework geology, tectonic evolution, and mineral resources of Alaska and the surrounding region.

aul Weimer, the son of distinguished alumnus, Bob Weimer (B.A. 1948; M.A. 1949), assumed the presidency of AAPG on July 1. The Weimers are the first father-andson to serve as president in the Association's 90-year history. Bob Weimer received the UW Distinguished Alumnus Award in 1982 and was honored by an Exemplary Alumni Award in 1994.

lumnus Robert W. Scott (B.A., 1960; M.A., 1961), continues to work as a research associate in the Geosciences Department at the University of Tulsa where he teaches a graduate course in carbonate sedimentology and an undergraduate course on history of the biosphere. His research on Cretaceous stratigraphy has resulted in a chronostratigraphic database of fossils integrated with nonbiotic events.

#### Obituaries



lumnus Stanley Snyder (B.S., 1950) passed away on July, 2009, in Spokane, Washington.

n obituary for Seismic Field Operations Supervisor Chris Humphreys is available online at, http:// geology.uwyo.edu/news/2011/11/obituary-chrishumphreys. 💠

## STAY IN TOUCH!

We always enjoy hearing from our alumni! Please let us know where you are and who you've become! Interested in being featured in PROfile? Let us know!

E-mail us at: ggeditor@uwyo.edu Vistit us at: geology.uwyo.edu/alumni

We are also on: 🚹 and Ў





Department of Geology and Geophysics Dept. 3006 1000 E. University Avenue Laramie, Wyoming 82071-2000 NON-PROFIT ORGANIZATION U.S. POSTAGE PAID LARAMIE, WY 82072 PERMIT NO. 1

# PROFILE

a semi-annual publication of the University of Wyoming Department of Geology and Geophysics

Dept. 3006 1000 E. University Ave. Laramie, Wyoming 82071-2000

> Phone: 307.766.3386 Fax: 307.766.6679

Web: geology.uwyo.edu

Paul H. Heller Department Head heller@uwyo.edu

Brendon Orr Editor ggeditor@uwyo.edu

Persons seeking admission, employment, or access to programs of the University of Wyoming shall be considered without regard to race, color, religion, sex, national origin, disability, age, veteran status, sexual orientation, or political belief.



This photo was sent to Professor Ron Frost by his graduate students while he was away on sabbatical during the 1985–1986 academic year. The caption they included was, "Dear Ron, don't worry, we have been working hard in the lab." Students from left to right are: Carl Anderson (Ph.D., 1995), Dave Marshall (M.S., 1987), Mary Ellen Koesterer (M.S., 1986), Tom Hulsebosch (Ph.D., 1993), and Judy Diamond (M.S., 1989).