



**DEPARTMENT NEWS**

This has been another fast-paced year with students and faculty traveling the world for research projects, presenting their work, and making an impact. The picture above shows the CSUB Geology contingent at the Fall 2014 Annual Meeting of the Geological Society of America in Vancouver, British Columbia. We had a record 13 students at the meeting, all supported by scholarships and grants. In all, we had 16 presentations, most of them with students as first authors and presenters.

Furthermore, this groundbreaking performance of our graduate students came on the heels of an even greater representation in April of 2014 at the annual meeting of the Pacific Section of the American Association of Petroleum Geologists. At that meeting, a full 20% of the technical program consisted of presentations by our students and faculty. Go CSUB!

The year also brought important staffing changes. We are happy to welcome **Dr. Junhua Adam Guo** as our new sedimentologist. As the replacement for the irreplaceable **Bob Horton** he

has big shoes to fill but is clearly up to the task. Bob continues on part-time to finish up various research projects and mentor students but will not teach anymore.



*Brandon Jackson, Kelsey Padilla, Sarah Freeman, Alyssa Kaess, Greg Thompson, and Logan Prosser were among the many students who presented at the PS AAPG 2014 Annual Convention. In all, CSUB presentations comprised an impressive 20% of the technical program.*

Dr. **Linda Davis**, our one full-time lecturer, left this summer to take an industry position in Ohio. During her time with us, Linda did a wonderful job mentoring students. There is an entire cohort of students who took many of their core geology classes from her. We appreciate her work at CSUB and wish her well in her new endeavors.

We were lucky and excited to be able to hire **Dr. David Miller** to replace Linda. David will start in January and teach the Mineralogy/Petrology sequence. We are hoping he will be a long-time addition to the department.

We also thank local geologists and geophysicists Brian Pitts, Steve Kiouses, Cari Meyer, Tim Elam, and Gary Myers for pitching in and serving as adjunct professors throughout the year. CSUB students are lucky to have such a great pool of part-time instructors with so much experience to share with them from many years in the classroom and workplace.



*Making an impact - graduate student Kelsey Padilla talking to California governor Jerry Brown and CSUB President Horace Mitchell about her work on the Quaternary climate history of Southern California and implications for water resources planning for the state.*

We just began a search for a senior Geoscientist to replace **Rob Negrini**. Rob will stay on for a couple more years as the director of CSUB's new **Energy Institute** and principal investigator for our NSF **CREST** grant but will not teach anymore. The hope is that the new senior person will take over as department chair in 2017 and lead the department through a generational transition as four long-time faculty retire. We are

very happy with our recent new hires **Graham Andrews, Chris Krugh, and Adam Guo** and feel confident that the department will be in good hands going forward.

**Sue Holt** joined the department this summer as our new Administrative Support Coordinator. She is already making a big difference working with our ever-increasing number of majors and the university's transition to the semester system. This is the first time we have a support person dedicated to the department and not shared with Physics and/or Chemistry.

Last, with all the staffing changes and shortages, we feel lucky that professionals from the community stepped up and help us to cover essential classes. They include alumni **Cari Meyer and Jon Goodell, Sarah Brown, Tim Elam, Steve Kiouses, Brian Pitts, and Gregg Wilkerson**. Let us know if you are interested in teaching a class for us. What we especially need are senior level elective classes in the area of expertise of adjunct instructors. We cannot pay much but the experience of working with our great students will be rewarding. The broad expertise of professionals from the community really enriches the education of our students. We also welcome alumni input on the ongoing and upcoming searches to replace retiring faculty.



*Cristina Rivas, Eric Heaton, Lilian Ruby, and Nick Moreno won GSA "On to the Future" scholarships to attend the Vancouver meeting. These were highly competitive and we are very proud that CSUB students won 4 of the 30 scholarships that the GSA awarded.*

## FACULTY AND STAFF NEWS

**Graham Andrews.** I have had a busy year teaching and developing my research group, and in particular, restructuring the MS program. I am currently working with several MS students on projects in structural geology, petrology, volcanology, and tectonics. Zachary Martindale is studying the Kern Canyon fault zone at Lake Isabella to constrain its range of behaviors in a future earthquake. Roger Ward will graduate in November after his study of the deformation associated with deposition and compaction of a volcanic unit near Death Valley. New students Linda Anderson and Nick Moreno are studying aspects of the development of the Sierra Madre Occidental volcanic province in northern Mexico, and Alana Crown is studying the correlations between pre-batholith sedimentary successions within the Sierra Nevada batholith near Kernville. Robin Richardson is continuing her study of the regional-scale structural architecture of the Owyhee Plateau in SW Idaho.



*The R/V JOIDES Resolution in Keelung, Taiwan – my home away from home for two months during Spring Quarter 2014.*

My own research has focused on completing papers with co-authors and developing new projects through grant writing and excursions. For example, in December 2013 Dr. Sarah Brown and I joined our colleague Dr. Pablo Davila-Harris in Mexico and established a new geological transect across the central Sierra Madre Occidental along the border between Durango and Chihuahua states. In April and May 2014 I was part of the

scientific crew aboard the JOIDES Resolution ocean-floor drilling ship. Our expedition focused on drilling into the Izu-Bonin-Marianas arc south of Japan to investigate the volcanic and sedimentary stratigraphy to better understand how island arcs evolve into continental crust.

**Dirk Baron.** I just started another 3-year term as department chair. My hope is to help steer the department through this period of tremendous growth, unprecedented opportunities, and the transition in which we hand the reigns to a group of very capable junior faculty. Although these days most of my time is spent in meetings and dealing with endless paperwork, I continue to work with students finishing up research and MS thesis projects. I also enjoyed advising two students in CSUB's new Ed.D. in Educational Leadership program. Dena Kiouses and Chris Cruz-Boone worked on the evaluation of two of our National Science Foundation grants for their doctoral dissertations which they recently defended. Their work provided a refreshing outside perspective on our work and the department. We continue to work with local high schools and teachers to offer college-level geology classes. The teachers will present our model to a national audience at the December 2014 National Science Teacher Association conference in San Diego. Last, on the second try I won a \$200,000 grant from the highly competitive (less than 1 in 20 proposals are funded) National Science Foundation Major Research Instrumentation program to acquire a new X-Ray diffractometer. The new instrument will replace the old Rigaku XRD which Bob purchased in 1991 with our first NSF grant ever.



*Students in my Hydrogeology class were on TV news a couple of times documenting Kern County's rapidly dropping groundwater table.*

**Sarah Brown.** I am now teaching my third CSUB class, Advanced Structural Geology, and helping to supervise graduate students with Dr. Andrews. Together we are supervising several students and working on finishing up papers.

**Janice Gillespie.** The chair position was demanding last year because there is a lot of preparation for the upcoming change from quarters to semesters. Our first year on the semester system will be Fall 2016 and I learned that the planning process for this starts years in advance...much to my dismay as chair last year. So I was pleased to hand off the chair-ship to Dirk this fall so I could get back to the important business of teaching! I received the Pacific Section AAPG Distinguished Educator Award at the convention in Bakersfield last spring. Our CSUB group had its own session at that convention!

I have been continuing my work on the CREST Grant (Carbon storage and EOR) with grad students Kelly Harrington (defends this fall) and Sam Jameson and undergrads Josh Atkins, Phil Herrera and Noe Torres.

I have also been working closely with the California Division of Oil and Gas on a contract to determine the depth of the 10,000 ppm TDS aquifers in the kern County portion of the San Joaquin Valley. This is an important part of the state's Underground Injection Control program as no oilfield waste disposal can occur in non-exempt aquifers with less than 10,000 ppm TDS. In addition, this work allows us to determine the volume of groundwater in Kern County that could potentially be remediated as the state sinks deeper into drought. Grad students Josh Meyer, David Kong and Stephen Anderson are working on this project.



*Jan and colleague Preston Jordan (Lawrence Berkeley Labs) celebrating their AGU poster with Certified Organic beers!*

**Junhua Adam Guo.** I and my family are settling in well in Bakersfield. The whole family love and enjoy the nice winter after nine years of cold winters in Missouri where I studied and worked as a research associate at the University of Missouri and the Lincoln University, respectively. I am currently teaching undergraduate Sedimentology and Stratigraphy and preparing to teach the upper-level/graduate course Advanced Stratigraphy in the 2015 winter quarter. I co-led/helped two class field trips. One trip measured the stratigraphic sections of the Carrara limestone formation and the sandstone formation in the Red Rock Canyon State Park. The second trip toured the San Andreas Fault, Vasquez rocks, deserts playas, lava tubes, and cinder cones in the southern Central Valley and the Mojave Desert. In 2013-14 I co-authored two manuscripts. One is in investigating the long-timescale variation in bulk and clay mineral composition of Indian continental margin sediments in the Bay of Bengal, Arabian Sea, and Andaman Sea. The second one is in analyzing the consolidation state and permeability of sediments in the Shikoku Basin to help document how the mechanical properties of these sediments would affect the frontal thrust development. I am excited to establish the shale research lab at CSUB and am pursuing external and internal funding sources. At home, my wife Yan helps daughters Angelina and Alice go to school and takes care of Belinda and our nearly 1-year old son, Ryan. Angelina and

Alice are in first grade and kindergarten this fall, respectively. They enjoy painting, drawing, dancing, and reading.



*Students learning about compression from a strike slip fault at San Andreas Fault Line*



*Students and faculty on the top of Kelso Dunes on the Geol 201 Field Trip. Dr. Guo in the back.*

**Sue Holt.** After just recently relocating to Bakersfield from San Diego, I was lucky enough to secure the position of Administration Support Coordinator in the Geological Sciences Department (quite different from the Regulatory Coordinator at a Clinical Research site). Although challenging learning the ins and outs of the many nuances of the job, it has been a pleasure to work with the faculty and students alike. The Department is a cohesive group whom have all been very welcoming.

**Bob Horton.** The past year has been a blur. After gladly passing on the Department Chair hat to Jan, I settled into my twilight days at CSUB. I started the year off by presenting a recap of my 30 years

of research on San Joaquin basin oil fields at a San Joaquin Geological Society meeting. My CREST program group has been going full speed and we've been getting some great results. Diem Nguyen and Alyssa Kaess accompanied me to the GSA Annual Meeting in Denver last fall to present their work, and they were joined by Stephanie Caffee in presenting updates at the PSAAPG meeting in Bakersfield last spring. I followed this by travelling to London to present papers at a Geological Society conference on Reservoir Quality, and Diem and I prepared papers that we submitted for one of their special publications. I participated once again in CSUB's summer REVS-UP program along with Alyssa and the group collected a mountain of data. We submitted our abstract to the AAPG Annual Meeting in Denver next spring (by now you probably noticed that I like to visit Denver) and Stephanie also submitted an abstract for the meeting. They are considering a special session on Reservoir Quality at this meeting with a SEPM Special Publication to follow, so we are keeping our fingers crossed that it will work out. Meanwhile, Diem will have defended her thesis by the time this newsletter comes out and Olawale Olabissi (aka Wale or Wally) should be finishing up right behind her. Meanwhile, I taught my last class at CSUB during winter quarter; Advanced Sedimentology had over 40 students. We took a field trip to the Ridge basin and it poured rain all day! The Templeton Highway outcrops were extremely exciting with flooding, thick mud, and rock fall keeping us on our toes. With the start of the current academic year I entered the Faculty Early Retirement Program to continue working on the CREST projects with Stephanie and Alyssa, but with the understanding that my teaching days are over (an agreement that allowed us to hire Dr. Guo to take my place on the faculty). I began my "FERP" by taking a nice long vacation in Chamonix, France (I could get real used to this retirement stuff!), and now I'm ready to get back to work finishing up a couple of things that have been on hold for far too long. And so begins my final lap here at CSUB. I'll end by thanking all of the wonderful students with whom I've had the pleasure to interact, and of course my colleagues who made working here such a delight. It's been a long and wonderful 30

years, and I can't imagine having had a better career.

**Chris Krugh.** My research group has been making progress on a number of exciting projects involving structural geology, tectonics, and geomorphology. Kathy Randall is wrapping up her study on deformation bands associated with the Ruby's Inn Thrust in southern Utah. Marc Halling is investigating the evolution of the Sierra Nevada Frontal Fault Zone through low-T thermochronology and mapping of fracture networks. Richard McGuire is studying the landscape response to active tectonics along the San Emigdio Mountains. I am looking forward to working with new students Kristen Koehler and Jordan Martin on their MS research. Kristen will be involved in a numerical modeling study of the thermal perturbations associated with fault interaction and linkage. Jordan has just started working on a field-based project, in collaboration with Andrew Hurst (Univ. of Aberdeen, UK), to map and characterize sand injectites in the Panoche Hills.

This fall I visited the Univ. of Wyoming to begin apatite fission analysis on detrital samples collected from catchments in the Eastern Sierra Nevada. This NSF funded collaborative research project aims to constrain sediment source areas and better understand the role of geomorphic processes on short and long timescale rates of erosion within catchments.

In December, I will present a poster at the 2014 AGU Annual Meeting on research initiated as part of the REVS-UP program at CSUB. Four local students, each from a different high school, participated in a research project that involved using GIS and Matlab to extract stream channel information along the Sierra Nevada Frontal Fault Zone. This work will be used to help characterize the landscape response to patterns of fault displacement.

**Rob Negrini.** Rob continues his natural evolution as a professor approaching retirement by transitioning out of teaching and into (shudder) management. He has taken on the half-time role of

developing the California Energy Research Center (CERC) ([csub.edu/energycenter](http://csub.edu/energycenter)), an institution that will serve as a center for faculty, student, and post-doc research and, also, as a job incubator for start-up businesses in the energy sector. The Geological Sciences Department will benefit from the CERC because it will increase the capacity of CSUB science, engineering, mathematics, and related departments to take advantage of opportunities for the abundant grants and contracts to support research in energy-related projects focused on Kern County, the "Energy Capital of California". Because of the CERC, more research money and jobs will stay in Kern County and more students in our area will gain the experience and skills in energy-related research leading to jobs with great salaries.



Rob is also still heavily involved in the NSF CREST grant and its student researchers. He and his students submitted three articles to the *Journal of Geophysical Research*, *Quaternary International*, and *Quaternary Research* over the past year, the first of which has already appeared in print. Two of them had students as first authors, Ashleigh Blunt's "Latest Pleistocene through Holocene Lake Levels from the TL05-4 Cores, Tulare Lake, CA, U.S.A.", and Greg Thompson's "Synchronous, millennial-scale climate changes between the northern Great Basin, USA, and

Greenland in a time interval including the Mono Lake geomagnetic excursion". Furthermore, by the time this newsletter comes out, Rob and two of his students, Rachel Tiner and Maryanne Bobbitt will have traveled to the Andean foothills east of La Serena Chile to acquire and sample lake cores associated with an NSF grant awarded to Rob and two research professors from the Desert Research Institute of Reno, Nevada. The samples will subsequently keep Rachel very busy over the coming year as she acquires data related to the Holocene magnetic field of the Earth and climate change in coastal South America.

## DONATIONS

Nothing will make Rob Negrini happier than to see more alumni donating to the Department this year. Please, please, please, step up to the plate and give generously. Your tax-deductible donations will be spent responsibly on student-supported causes like defraying the cost of summer field camp, student travel to meetings, etc.

In this time of ever-shrinking state funding for the CSUs, support from the community and our alumni becomes essential for maintaining the quality of the educational experience of our students. We gratefully acknowledge donations to the Department from the following (all in alphabetical order and all very much appreciated):

**Corporations and Organizations:** Aera Energy, American Petroleum Institute, Chevron, Oxy, Pacific Section AAPG, PennState/AfricaArray, San Joaquin Geological Society, Sam Noble Foundation.

**Individuals** Florn Core (BS 1974), Cynthia Huggins (BS 1984), Geoffrey Nicholson (BS 1974), Dan Schwartz, Sandra and Dan Steward (BS 1992, MS 1997).

A donation of \$2,500 plus a \$2,500 match from AERA Energy was made to the department by **Dan Schwartz** and alumna **Cynthia Huggins**.

Apologies if we forgot someone, let us know so we can acknowledge you in next year's newsletter.

## STUDENT NEWS

This has been another great year for students. They traveled the world for field camp and research, won scholarships, and presented their work at national and international meetings. A record 28 students received Geology degrees in 2014, six of them graduate degrees.



*Rob and Dirk with some of the graduates at the 2014 Commencement*

**Diem Nyugen** was the Spring 2014 Outstanding Graduate in Geology. **John Wilson** won first place in the 2014 CSUB Student Research Competition.

Stephen Anderson, Linda Anderson, Eric Heaton, Samuel Jameson, Alyssa Kaess, Kristin Koehler, Jordan Martin, Zachary Martindale, Nick Moreno, Kelsey Padilla, Cristina Rivas, Lilian Rubi, and Rachel Tiner are **CREST Fellows** and receive substantial scholarships from our center supported by the **National Science Foundation**.

**USDA/WRPI Scholarships** Several students received \$4,500 scholarships from an USDA grant through the CSU Water Resources and Policy Initiative.

**National Science Foundation Scholarships** for new freshmen and recent community college transfers went to Corrina Bailey, Estefania Olaya, Alejandro Rodriguez, Alicia Garcia, Elijah Harris, and Elijah Dodd (\$7,500 total).

As the top students in Structural Geology, Efrain Pimentel, Juan Arrellano, Karla Lopez, Alana Crown, and Blake Foreshee received **Steward Field Camp Scholarships** funded by a donation

from Sandra and Dan Steward and a match from the Sam Noble Foundation (\$10,000 total).

**C.E. Strange Scholarships** were awarded to most of the students taking field camp in summer 2014.

**Janine Roza** received a CSUB professional development grant to support travel for research and conferences.

**USDA/WRPI Scholarships** Several students received \$4,500 scholarships from an USDA grant through the CSU Water Resources and Policy Initiative.

**AfricaArray Scholarships** from **PennState** were awarded to Janet Arroyo, Lester Carcamo, Brynn Galindo, Phillip Herrera, Gerardo Vallejos, Victor Medrano, and Obeyd Mohammadi.. Janet, Obeyd, and Lester participated in the Marcellus Shale summer course. Brynn and Gerardo Vallejos traveled all the way to South Africa for the geophysics field course there.



*Janet, Lester, and Obeyd present to industry donors at the AfricaArray forum in Houston.*

Several students received **SJGS Field Camp** and **Graduate Research Scholarships**.

Several scholarship endowments did not produce enough income for awards in 2014 but we will make awards in 2015.

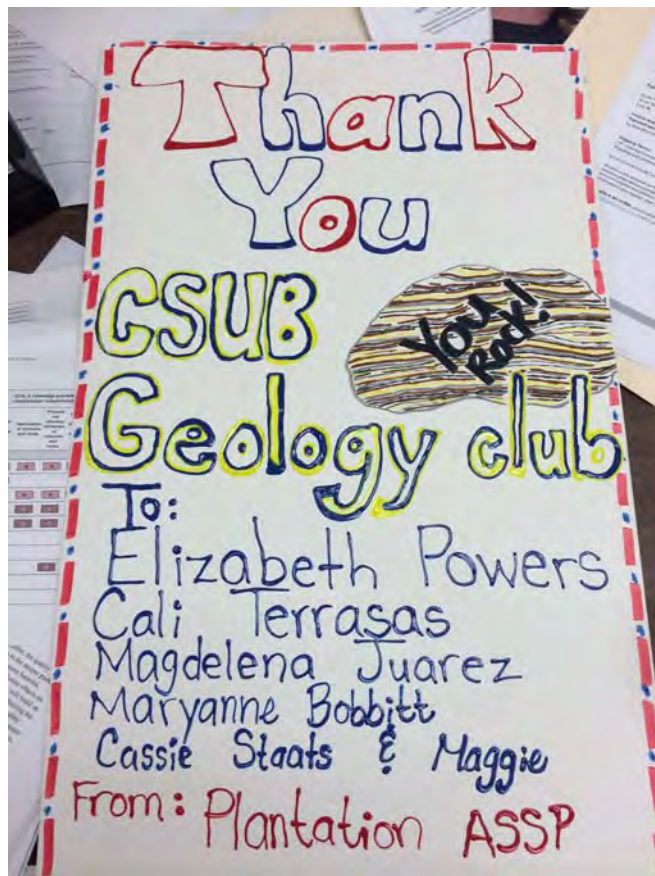
**Janine Roza, Marc Halling, and Matt Van Grinsven** did a great job as our graduate teaching assistants.

The **CSUB Geology Club** had another very active year organizing field trips and volunteering in K-12 schools and at campus events. Thanks to Club

president **Cali Terrasas**, officers **Maryanne Bobbitt, Allison Burich, and Eric Heaton**, and all the Club members.



*Geo Club members volunteering in Sequoia National Park.*



*Thank-you card from Plantation Elementary School students, one of the schools the Club visited in 2014.*



Join the **CSUB Geology Club** site on Facebook to keep up on club activities, and job and scholarship opportunities. After last year's success with the **Geo Club BBQ** at the Buena Vista Museum of Natural History, we will host it there again on **February 20, 2015**, starting at 6 pm. Contact Elizabeth Powers ([epowers@csub.edu](mailto:epowers@csub.edu) , 661-654-3274) for tickets. Last year the event sold out.



*Photos from the 2013 BBQ made it onto the society pages of our local newspaper! Looks like being a Geologist is becoming a cool thing.*

## ALUMNI NEWS

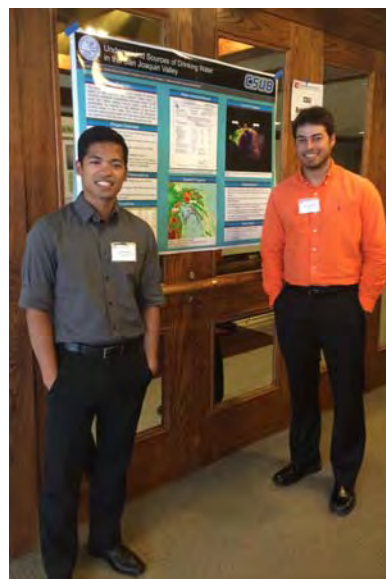
To save paper and printing costs, this year we are listing only our new alumni. The complete alumni list can be found in previous newsletters which will soon be available again on the department website. We plan to have an updated complete list in a future newsletter so please keep us updated.

Please send any corrections, updated addresses, news, and pictures and stories from the old days

for inclusion in future newsletters to Dirk Baron ([dbaron@csub.edu](mailto:dbaron@csub.edu)). If you are ever in the area, please stop by to see our new facilities and meet current students and faculty. We are also always looking for alumni to give seminar presentations about their work and careers. These are very inspirational for students. We would love to hear from more of our alumni.

## 2013 – 2014

**Stephen Anderson**, BS 2014, is working on his MS Geology at CSUB.



*Stephen and John Wilson presenting their work at the 2014 WRPI Conference.*

**Linda Anderson**, BS 2014, is completing her MS Geology at CSUB, fully supported by a CREST fellowship.

**Juan Arellano**, BS 2014

**Joshua Atkins**, BS 2014, is working as a geologist at California Resources Corporation (formerly Oxy/Vintage).

**Alana Crown**, BS 2014, is working on her MS Geology at CSUB, fully supported by a CREST fellowship.

**Kevin Haney**, BS 2014, is working at Chevron as a Technical Assistant through the contractor company Act-1.

**Kelly Harrington**, MS 2014, is working as a geologist for Chevron.

**Eric Heaton**, BS 2014, is working on his MS Geology at CSUB, fully supported by a CREST fellowship.

**Donald James**, BS 2014

**Martin Jimenez**, BS 2014, is pursuing a graduate degree at PennState, with full support through a fellowship.

**Raul Jimenez**, BS 2013, is working as a junior engineer for Weatherford.

**Magdalena Juarez**, BS 2014, is working at Chevron.

**Robert Kelty**, BS 2014

**Jeffrey Kimber**, BS 2014, is working for the California Division of Oil, Gas, and Geothermal Resources and on his MS Geology at CSUB.

**Kristin Koehler**, BS 2014, BS 2014, is working on her MS Geology at CSUB, fully supported by a CREST fellowship.

**Esteban Macias**, BS 2013, BS 2014, is completing his MS Geology at CSUB.

**Jordan Martin**, BS 2014, is working on his MS Geology at CSUB, fully supported by a CREST fellowship.

**Spencer Mcmillan**, BA 2014

**Nikolas Miller**, BS 2014

**Diem Nguyen**, MS 2014, moved to Houston and is looking for a job there.

**Ogonna Obinwa**, BS 2014, is working on his MS Geology at CSUB.

**Alyssa Ramirez**, BS 2014, is working as a GeoTech at California Resources Corporation.

**Cristina Rivas**, BS 2013, is completing her MS Geology at CSUB, fully supported by a CREST fellowship.



*Cristina explaining her MS Geology research to former CSUB Geology professor Staci Loewy at the 2014 GSA meeting in Vancouver, BC.*

**Jason Robbins**, MS 2014, is working as a geologist for Chevron.

**Monica Sanchez**, BS 2014, is working as a GeoTech at Vintage Petroleum.

**Randall Stephenson**, MS 2014, is working as a geologist for AERA Energy.

**Rachel Tiner**, BS 2014, is completing her MS Geology at CSUB, fully supported by a CREST fellowship.



*Rachel (left) and Maryanne Bobbitt (right) relaxing with colleagues after a long day of field work in the high desert of Northern Chile, one of Rob Negrini's paleoclimate research projects.*

**Jera Tucker**, BS 2014

**Roger Ward**, MS 2014

**John Wilson**, MS 2014, is in the Ph.D. program at UCLA, fully supported by a research assistantship.

**James Wilson**, BS 2014, is working on his MS Geology at CSUB.

*Recent Alumni  
Eric Heaton  
and  
Monica Sanchez  
staffing the  
reception  
booth at the PSAAPG Meeting.*



# Donations

As you can see from the newsletter, there are many exciting things going on in the department and their education serves our students and alumni well. All this despite ever-shrinking state funding for the CSUs. This makes external support ever-more important if we want to give our current students the exceptional educational experience that we hope our alumni experienced during their time here. We are doing our part and are bringing in major external funding by winning highly competitive federal grants. Industry partners, folks from the community, and many alumni have also stepped up. Please follow their inspiring example, dig deep, and consider a donation to - as Rob Negrini likes to say - "a gem of a small department" that provides great services to the community and our profession.

Please make your check payable to **CSUB Foundation** and indicate that it is for the **Geology Department Trust Account TR036**. Indicate the specific cause you want your donation to go to below on this form.

**Return to the address on the back of this page, to the attention of Dirk Baron.**

Name:

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Affiliation (if applicable):

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Address:

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City, State, Zip Code:

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Email:

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Please indicate the amount you want to donate:

\$100   \$500   \$1,000   \$2,500   \$5,000  
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Please indicate if you want your donation to go to one of these specific causes:

**Sam Gonzalez Memorial**

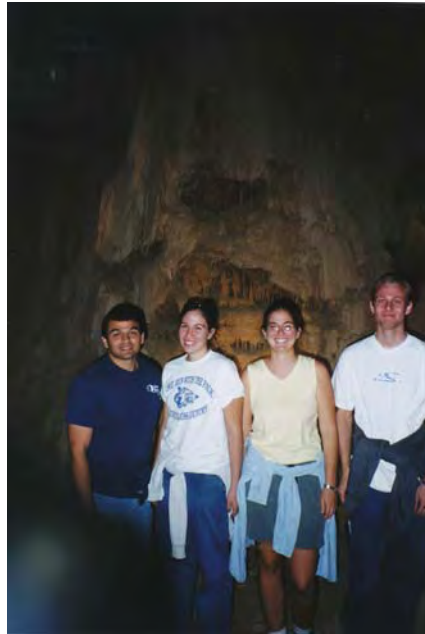
**Scholarship** (to support students who after exploring other fields have discovered Geology as their calling)

**Student Scholarships (will be added to the existing CE Strange Scholarship Fund)**

**Field Activities (will be added to the new Claude Fiddler Field Endowment)**

**Undergraduate Student Research**

**Unrestricted to support current needs identified by department faculty**



*Geochemistry field trip in Mitchell Caverns in 2001, Guillermo Guillen, Lorelea Samano, Sara Draucker, Brian Taylor (from left). Sadly, we have not been able to visit the caverns in recent years. They have been closed as another casualty of the state budget problems.*



*On the 2000 Friends of the Pleistocene trip to Newberry Crater, Oregon, from left Kathy Edwards, ?, Rob, Michelle Casterline, Jana Fluckey, Michael Quilliam, John Huff, Dirk (from left)*

**Thank You!**



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**CSUB Geological Sciences Department**  
**Fall 2014 Newsletter inside**

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*Students and faculty at Vasquez Rocks on the field trip for our introductory Geol 201 – Physical Geology Class. Thanks to generous donations from alumni and the community, this is now a three-day trip based at the Zzyzx Desert Studies Center in the Mojave National Preserve. We invite senior geology students and community college faculty and students who are planning to transfer to CSUB. This is a great networking opportunity for all involved. On future trips, we would also like to have alumni join us. Please let us know if you are interested. The 2015 trip is scheduled for November 13-15.*