

# Geosciences Program Newsletter

For alumni and friends of the geosciences program  
Autumn, 2016



## GS

Autumn 2016  
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*The road out of a glacial crevasse, Juneau Icefield, Alaska.  
Photo by CMU Geosciences major Donald (DJ) Jarrin. See related article, Rock Star on Ice.*

## CMU Storms GSA!

By **Andres Aslan**

The September 25–28 national Geological Society of America (GSA) meeting in Denver this year was an exciting event for Colorado Mesa University Geosciences. Twenty-five current and former CMU students and faculty attended the meeting, which is the largest number of Mavericks to attend a GSA meeting to date. Funding from the **Richard D. Dayvault Endowed Memorial Scholarship** provided crucial financial support for the students' attendance and was greatly appreciated! Eight current/very recently graduated students (**Michael Feil, Walter Green, Michael Hale, Donald Jarrin, Rachael Lohse, Joe Mazza, Jaron Ragsdale, Adam Trumbo**) participated in oral and poster presentations, and six of our students were first authors and primary presenters! Former students, several of whom are current faculty members at other universities, also gave presentations at the meeting (**Alexis Sitchler Navarre '00**, Associate Professor, Colorado School of Mines; **Sally Potter McIntyre '06**, Assistant Professor, Southern Illinois University; **Andy Darling '09**, Research Faculty, Colorado State University; **Jeff Hrcir '14**, MS student, University of New Mexico; **Marisa Boraas-Connors '14**, MS student, Colorado State University). In addition, CMU Geosciences faculty **Andres Aslan, Rex Cole, Verner Johnson, Rick Livaccari**, and our newest faculty member, **Dr. Cassandra (Cassie) Fenton**, were all presenters and authors on multiple abstracts. It was thrilling to see so many of our current students engaged at the GSA meeting and to see so many of our past students in successful and exciting careers. Our students were able to see and experience the full breadth of current activities in the geosciences, and perhaps catch a glimpse of what the future may have in store for them. Besides seeing a wide range of presentation topics, students were also able to visit with current graduate students and professors to learn about graduate school program opportunities. Donald Jarrin,

*CMU alumni, faculty and students  
at GSA Annual Meeting in Denver.*



who is currently applying to graduate schools, said "GSA was the perfect venue to display my abilities and present my research to potential graduate school professors." And as one professor from New Mexico Tech said to me, "we want students from schools like CMU in our program." •

## Rock Star On Ice — CMU Geology Student Chills All Summer Long

While most CMU students and faculty sweltered in the heat of the Grand Junction summer, CMU geology senior Donald "DJ" Jarrin decided to literally "chill" on ice. DJ spent late June until late August on glaciers in Alaska and Canada as a student in the University of Southeast Alaska Juneau Icefield Research Program (JIRP). The JIRP program involved a week of classes and training in Juneau, six weeks traversing and studying the Juneau Icefield, followed by a week of wrap-up. The program culminates with student presentations at the 2016 American Geophysical Union meeting in December. Approximately 32 students and 18 faculty and staff took part. After the initial orientation and training, the group broke into smaller groups who traveled from one camp to another on a variety of projects that included a long-term GPS survey, oxygen isotope work, a geophysical survey, geochemistry of meltwater, geobotany of nunataks (isolated bedrock "islands" in the sea of ice), and mass balance. The total distance traveled was on the order of 200 miles and was accomplished via hiking, skiing, and at times, crampons.

DJ was part of the geophysical investigation focused on ice thickness estimates led by Dr. Lucas Beem, postdoc at University of Texas, Austin, and Kiya Riverman, doctoral candidate at Pennsylvania State University. His group took gravimeter readings at various locations in order to compare actual measurements with modeled thickness. One of DJ's roles was to carry the gravimeter, which was not only heavy and very pricey, but had to be kept upright in his pack. He and his colleagues are still processing data, and DJ will be presenting their results at the AGU December meeting in San Francisco.

DJ found out about the program purely by chance while doing a Google search on another topic. The application deadline was already several days past when he discovered it, but he contacted the sponsors and was told that if he got his application in by the end of the following day, they would at least take a look at it. To his surprise, he was accepted as an alternate several weeks later, and then accepted into the program soon after when one of the other candidates dropped out. The course gave DJ six more credits toward graduation



*Donald (DJ) Jarrin enjoying a day in the field last summer on the Juneau Icefield.*

at CMU, but was worth far more than just the credit hours to DJ. He made numerous contacts with researchers who are on the cutting edge of glacial research. He was able to narrow down his interest in glaciology to the geophysical aspect and plans to study that in graduate school. He learned a great deal about geophysics and modeling, and felt that the team-building and interaction with students and faculty from across the world was a huge plus. "It was an amazing experience," DJ said. Congratulations, DJ, on a "cool" summer, and good luck in grad school. •

## Two Geology Faculty Retire

**T**he Geosciences Program lost two very experienced Geology Instructors to retirement this year. Skip Hase and Donn Lorhammer both decided to join the ranks of the idle rich (we hope) after many years teaching at CMU.

Harold (Skip) Hase retired this past summer after 22 ½ years of service. Skip taught thousands of students over his career, primarily in Survey of Earth Science and Physical Geology. He also was involved intermittently with summer field camp and a topics class on mineral deposits. Skip obtained his B.S. in Geology from the University of Wisconsin, Milwaukee and his M.S. in Geology from Michigan Technical University. Prior to joining Mesa State, he worked in mineral exploration and development at numerous locations across the United States. The faculty and students wish him an enjoyable retirement.

Donn Lorhammer retired at the end of spring semester, 2016, after 21 years of service. Donn began his teaching career in 1995

after retiring as a Commander in the U.S. Navy. His naval career spanned 28 years and included three submarine tours. He was also an instructor (nuclear engineering) at the Navy's nuclear facilities in Idaho. His last six years in the Navy were spent supervising the maintenance and repair of nuclear submarines.

Originally, Donn had a joint appointment in the Physical and Environmental Sciences and Mathematics Departments, but later became a full-time Instructor in Geology where he faithfully taught Weather and Climate and Oceanography. Semester after semester, these two general education classes had the highest enrollments in the entire Geology Program. Donn estimates that about 6,000 students took these courses. Donn's expertise for teaching Weather and Climate and Oceanography came from his academic background (B.S. in Meteorology from University of Utah) and an M.S. in Mechanical (marine) Engineering from the Naval Post Graduate School.

Donn and his wife Janame have moved to the Baltimore area to be closer to family and to enjoy full retirement. We all wish him well and extend our profound gratitude for his dedicated service. •

## Coordinator's Corner

**L**et me begin by offering thanks again to all of our Alumni, friends and supporters for helping us continue to provide exciting opportunities for our students in the Geosciences Program at CMU. Note that we have added the recently created Richard D. Dayvault Endowed Memorial Scholarship to the list of giving options.

### Faculty retirements & new additions

Long-time faculty members **Donn Lorhammer** and **Skip Hase** retired this year after many years of service to the Geosciences Program. We are fortunate to be able to welcome **Dr. Cassandra (Cassie) Fenton** as the replacement for Donn. Cassie earned her Ph.D. at the University of Utah (specializing in geochemistry and cosmogenic radionuclides) and has spent 12 years working in Europe (primarily Germany) on a variety of research projects. This is Cassie's first full-time teaching appointment, and by all accounts she is off to a great start! To fill Skip's class responsibilities, CMU has hired a team of instructors including **Dr. Robert Halley** (Emeritus research carbonate sedimentologist from the USGS), **Heidi Schoenstein**, and former CMU geology student **Doug Nichols, '16 (BS)**. The program hopes to replace Skip with a tenure-track faculty member specializing in Geochemistry.

**Student awards** – Numerous students received program as well as school-wide awards this year. **Jaron Ragsdale** received

the prestigious Rocky Mountain Association of Geologists Neal J. Harr Outstanding Student Award as well as the first award from the Richard D. Dayvault Endowed Memorial Scholarship. **Adam Trumbo** received the William C. Hood Student Research Award, and **Mickey Guziak** received the Verner C. Johnson Geology/GIS Award. The Association of Women Geoscientists award went to **Ronni Whittle**. The Grand Junction Gem & Mineral Club Scholarships (\$500 each) were awarded to **Ronni Whittle**, **Mickey Guziak**, and **Trey Nusbaum-Davis**. Grand Junction Geological Society (GJGS) Field Camp Scholarships (\$500 each) were awarded to **Cody Rapke**, **Rachael Lohse** and **Ian Shafer**. **Cody Rapke**, **Jaron Ragsdale**, and **Nick Scott** received Best Student Presentation Awards at the April meeting of the GJGS, which features student research presentations. Lastly, **Jaron Ragsdale** and **Nolan McDonald** were awarded Best Poster Presentations at the annual CMU Student Showcase event in April.



*Dr. Aslan and students enjoy an outcrop discussion on the Spring 2016 Alumni Field Trip.*



*Dr. Cassandra (Cassie) Fenton joined the Geosciences faculty fall semester, 2016. Welcome, Cassie!*

**Program Activities** – **Jason Peterman, '00 (BS)** of WPX Energy came to campus in April and spoke to our students about careers in the oil and gas industry. Jason completed a M.S. in Petroleum Engineering at Colorado School of Mines following his graduation from Mesa State, and has worked extensively in the Piceance Basin. It was certainly exciting to hear about Jason's career path, and he provided our students, many of whom want to pursue careers in the petroleum industry, with insights on the state of the industry. Thanks Jason!

## **Geology Program 2016 Spring Field Trip to Canyonlands**

The Geosciences Program Annual Spring Field Trip to Canyonlands in April was a big success with 45 students, faculty and alumni attending. We had great views from Island in the Sky overlook and a personal tour of Upheaval Dome led by **Dr. Dan Schultz-Ela** of CMU who is a co-author on the seminal paper outlining the evidence for a diapiric origin of the dome.

**Special Spring Field Trip Announcement** – Last year's Spring Field Trip was such a success that we plan to go to Canyonlands again this coming spring. The tentative date for the trip is Sunday, April 23, and is free for all students and alumni. We would ask alumni, however, to consider making a donation to one of the Geosciences funds.

Thank you to everyone for your continued interest and support of the CMU Geosciences program. We hope everyone is well and that we hear from or see you soon! •

Sincerely,  
Andres Aslan  
Geology Program Coordinator

## **Maverick Geologist (Alumni News)**

**V**erner reports that **Christian Klaiber, '15 (BS)**, has been accepted to the Master of Education program at CMU. Christian expects to finish his ME degree in science in May, 2017, and then teach secondary education science. Christian is also helping to coach the District 51 swim team and is helping Verner with research on the Uncompahgre Plateau.

**Rob Rice, '13 (BS)** is writing his Master's Thesis in hydro-geophysics and still working for Navarro Research and Engineering. His research involves using down-bore EC measurement to monitor aqueous chemistry variation. He has other irons in the fire. We'll expect another update from Rob soon.

**Tammy Lee Stewart Crossen, '10 (BS)** sent the following summary of her experiences at CMU and beyond:

**//** My story begins in the fall of 2004. I was working at Mesa State College as the Assistant Coordinator of Testing. My supervisor at the time informed me that Mesa State would pay for 3 credit hours per semester if I wished to take any classes. I began to take classes at night or during my lunch hour. However, I soon had run out of night classes and had to make a decision about whether I would continue to work or go to college full time. It had always been my dream to go to college after high school, but instead I had gotten married and had two children. I decided to go to school full time and quit my job as the Assistant Coordinator of Testing. I had always wanted to become a veterinarian, so I chose Biology as my major, but I took a lot of geology courses to satisfy my gen-ed requirements.

One of my first geology classes was Introduction to Colorado Geology with Dr. Larry Jones. During one of his classes, Dr. Jones asked how many in the class were geology majors. A few raised their hand, but I was not one of them. I mentioned I was working towards a Biology degree. He then asked, why not do both? I gave it some thought, but it was not until I took one of Biology Professor Stephanie Matlock's classes that I seriously considered the idea. She was talking about the degrees that she had and the reason she had them. She was my inspiration for working towards two Bachelor Degrees one in Biology and one in Geology. In 2008, I received my B.S. in Biology and my A.S. in Geology. I continued on in school, and in the summer of 2010, I finished geology field camp and

received my B.S. in Geology! Thanks to Dr. Larry Jones who first planted the seed that a person could work on two degrees, and to Professor Stephanie Matlock that was the drive to push on!!

After I finished school, I wanted to share with Dr. Jones that it was his question in class that started all of this. But when I graduated, he had taken another teaching job somewhere in Wyoming (editor's note: Montana) I believe. So, Dr. Jones, this message is to tell you thanks, and to say Thank You to all the professors that I had during my time at Mesa State College.

I am now going on my fourth year working for Chevron USA Inc. in Rangely, Colorado as the Health and Environmental Specialist. **//**

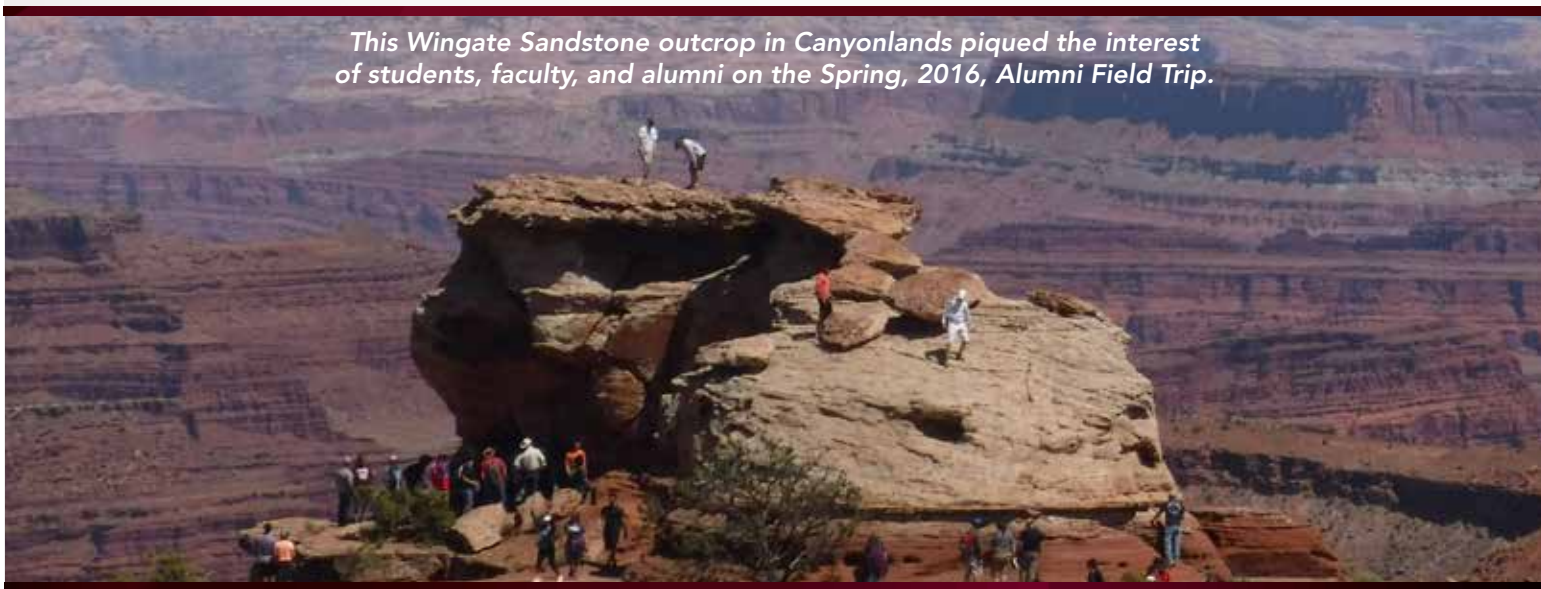
We always like to hear from our former students. If you can, please drop by or send an email and let us know what you are doing! •

## GIS Program Still Growing

By **Verner C. Johnson, Ph.D. Professor of Geology and GIS Coordinator**

**C**urrently, the GIS Program at CMU is still growing as more and more non-science majors are taking GIS courses. The program is now becoming outdated because of the rapid changing geospatial technology. As a result, we will be renovating, improving, and expanding the GIS program and facilities in the future. Two new geospatial firms, Kaart Group and ProStar, have opened offices in Grand Junction and are planning to partner with us for internships and training programs. •

*This Wingate Sandstone outcrop in Canyonlands piqued the interest of students, faculty, and alumni on the Spring, 2016, Alumni Field Trip.*



## Club Activities

**Zeta Nu Chapter of Sigma Gamma Epsilon.** Zeta Nu, CMU's chapter of Sigma Gamma Epsilon (SGE), the earth science honor society, initiated 13 new members, including eight geology majors and five environmental science majors, on October 5th. Initiates must have a 3.0 GPA. The initiation ceremony included the traditional kissing of the rock, reciting a poem and celebrating with tasty treats (photos on the Zeta Nu Facebook page [facebook.com/Sigma-Gamma-Epsilon-Zeta-Nu-Chapter-106813392722490/](https://facebook.com/Sigma-Gamma-Epsilon-Zeta-Nu-Chapter-106813392722490/)). This year, the officers decided to add slacklining and frisbee to the festivities, and everyone moved outside to enjoy a beautiful fall evening. Later this fall, SGE will host an alumni panel discussion on "Life after CMU" as well as a research presentation by SGE President Donald "DJ" Jarrin on his summer geology research and field work on glaciers in Alaska. Any alumni in the area who would be interested in participating on the panel, please let us know! •

## Going with the Flow: Water Related Activities in CMU's Geosciences Program

By Gigi Richard

**T**he Ruth Powell Hutchins Water Center at CMU already has had a busy year. We hosted the 3rd Annual Colorado Student Water Forum the weekend of September 23-25. With 12 students from around the state including CSU, CU-Boulder, Metro State University-Denver and five CMU students, including two geology majors, we toured water-related sites and facilities in the lower Grand Valley and Orchard Mesa. One of the highlights of the tour was visiting the US Fish and Wildlife Service endangered fish hatchery, where willing students (and professors!) puckered up to smooch a razorback sucker. Other visits included Bernal Farms, Little Salt Wash restoration sites, Field to Fork CSA Farm, and the Orchard Mesa Irrigation District pumping facility. We learned a lot about the Colorado River, how it's used to grow our food, and efforts to manage and restore the riparian and aquatic environment. Check out more photos on the group's Facebook page [facebook.com/groups/colowaterfieldconf/](https://facebook.com/groups/colowaterfieldconf/).

The Water Center will host its annual conference, the Upper Colorado River Basin Water Forum on November 2-3 this year. We hope to see some of you there! For more details go to [coloradomesa.edu/water-center/](https://coloradomesa.edu/water-center/). •

## Alumni Facebook Page

**D**id you know Colorado Mesa University Geology Alumni have a Facebook page? You can access it at [facebook.com/CMUGeology](https://facebook.com/CMUGeology). •



## Base Level: From the Editor

**W**elcome to the fifth issue of the Colorado Mesa University Geology Newsletter. Can you believe that a total of 25 CMU students, faculty, and alumni attended GSA in Denver this fall? What a great turnout! CMU geology senior Donald "DJ" Jarrin had a summer to die for in Alaska. Be sure to read about his experiences and check out the glacier photos. This issue also contains the Coordinator's Corner and other regular features.

Now then, to be honest, I'm not getting as much information from alumni as I'd like. I would especially like photographs! Current pics, or from the past, but please send me some images related to your time here or your career. I also would like to know what you're up to. Please send your name, year of graduation, and any details directly to me. You can contact me directly at [lajones@coloradomesa.edu](mailto:lajones@coloradomesa.edu). •

Larry Jones,  
Newsletter Editor

# Thanks for All the Generous Donations!

The Geosciences Program and students greatly appreciate the strong financial support provided by the following alumni and friends of the program:

## Richard D. Dayvault Endowed Memorial Scholarship

Cathy Barkley  
Bill Corzine  
Jalena Dayvault  
April Gil  
Craig Goodknight  
Larry Jarvis  
Richard Mauger

## Geosciences Tuition Scholarship

Patricia Grant  
Patricia Powell

## Geosciences Department

Helen Brownlee  
Chevron North America

## Geology X-Ray Lab

William Hood  
Michael Whittle