Geology Alumni Endowed Award: 2017 Report

A few years ago, Geology alumni in the Houston area began a tradition of gathering together for comradery and reflection on how they could give back to their alma mater. Their spirit of philanthropy to support a program that helped lead them into their futures has brought us to this point. What follows in this report is the first in a line of many to come.


We’ve had an incredible year since a group of Geology alumni rallied together and started the Geology Alumni Endowed Award! This endowed fund is part of the College of Charleston Foundation, a 503(c) nonprofit organization. Through the donations and pledges from alumni, and matching gifts from their employers, we project a fund balance of $313,000 in real funds and pledges, toward our ultimate goal of $500,000. Based on progress to date, we anticipate the fund maturity to occur by the year 2020. This coincides with the upcoming sestercentennial (250 year) anniversary of the College of Charleston’s founding. The kindness and generosity of our Houston alumni group, led by Mike Passarello, Emily Sekula, and Karen Black, have inspired other Geology alumni, faculty and staff to increase activity to build our community at other locations, and have changed the narrative around charitable giving at the College of Charleston. Our challenge now is to keep accelerating toward our target and create new targets with the ultimate goal to make College of Charleston Geology and Environmental Geosciences one of the premier programs in the country for undergraduate learning and research.
Funding activity

2017 Funding Activity and Growth
(as of December 31, 2017)

Current Donations: $83,254.96

Net Investment Gains – Administrative Fees: $8,395.17

Pledges including company match: $90,566.71

Total: $182,216.84

Summer Research Students able to fund: 2

Three Geology majors’ summer research was supported by the fund in 2017. Students received support from the School of Sciences and Mathematics Dean, Dr. Mike Auerbach, who has promised yearly research funds while the endowment grows to maturity. Hana Mintz, Jeniffer Soto Perez, and G. Brad Thompson were rising senior Geology majors when they worked on their research projects in summer 2017. All have continued their work into the 2017-2018 academic year. Below are some details of their projects.

**Hana Mintz** (mentor: Dr. John Chadwick)

Hana visited several field sites around the Yellowstone / northwestern Wyoming and southern Idaho area to study the continental crust characteristics associated with the Yellowstone hot spot. They are investigating to see if the chemical isotope composition of rocks reflected contributions of magma...
materials into the crust because the Earth’s crust is thinner in that region. Hana collected many samples of different ages from late Pleistocene through the Holocene for isotopic analysis at a partnering university. Hana is currently analyzing the results and has continued her research through the academic year. She is planning to attend graduate school later in 2018.

Hana presented her work at the College of Charleston’s Celebration of Scholars, and at the American Geophysical Union Fall Meeting in New Orleans, LA in December 2017. She’ll present updated results at the 30th Annual School of Sciences and Mathematics Research Poster Day.

**Jeniffer Soto Perez (mentor: Dr. Vijay Vulava)**

Jen studied the geochemical behavior of cetirizine (CET) and diphenhydramine (DPH) in natural soils and determined their reactivity with major soil components, including clay minerals and organic matter. These compounds are common antihistamines used to treat allergies and common cold symptoms and are increasingly found in natural environments. The motivation of this study is to determine the transport ability and fate of pharmaceutical and personal care product chemicals in the environment. Wastewater treatment standards often are not able to filter these low-level chemicals, which then can be released via the treated wastewater discharge. There is much interest the fate of these chemicals in ecosystems.

Jen presented her work at the College of Charleston’s Celebration of Scholars event during Convocation in August 2017; she also presented at the Geological Society of America conference in Seattle, WA in October 2017. Jen will present her updated results at the 30th Annual School of Sciences and Mathematics Research Poster Day on April, 12, 2018.
G. Brad Thomson (mentor: Dr. Phil Manning)

Brad began a paleontology research project last summer interpreting data from x-ray tomography methods of vertebrate fossils (mentor: Dr. Phil Manning). Dr. Manning has colleagues at the Stanford Synchrotron Radiation Lightsource which involves non-destructive methods to identify chemical signatures of fossil and associated mineral composition in paleontological samples. For Brad’s project, the chemical composition was determined by the way electrons were excited from the surface atoms by the SSRL beam. Sulfur, silicon, and iron contents were analyzed in certain fossils. Brad has continued the data analyses with Dr. Manning and colleague Dr. Victoria Egerton this academic year. Brad has also participated in field work in Wyoming in the Bighorn Basin with Drs. Manning and Egerton as well as scientists from the Indianapolis Children’s Museum. At the dig site he learned field techniques and discovered several well-preserved diplodocid sauropod and allosaur fossils. Brad and the team also collected an unusually large amount of plant material which strongly suggests that the site was once an estuarine environment approximately 150 million years ago. Brad learned and applied light detection and ranging (LiDAR) methods to survey the site for innovative paleontological applications. He also assisted with creation of a digital composite of a three-dimensional model of the entire fossil site in great detail.

Brad presented his work at the College of Charleston’s Celebration of Scholars and will also present updated results at the 30th Annual School of Sciences and Mathematics Research Poster Day.
Geology Department Outreach

We’re excited to report increased communications with Geology alumni. Our mission is to establish easy pathways for alumni to provide feedback, stay connected with departmental changes in faculty and programming, increase the connection with current students, and foster networking to create opportunities for advancement. So far we’ve done several things toward these goals:

**Departmental Newsletters.** Through the efforts of the Geology Alumni Endowment Fund principals Mike Passarello, Emily Sekula, and Karen Black and the entire Houston alumni group, and linking more actively with CofC Alumni Affairs, we now have a comprehensive and manageable alumni contact information list. Reach out to us by sharing your current contact information here.

**Conference Receptions.** This past Fall we had two fun social events, one at GSA in Seattle last October, and a second event at AGU in New Orleans in December. At each event we had alumni from many different “vintages” come together for refreshments and good conversation. A special thanks to Cooper Smith (2012) in Seattle for helping us connect with the good folks at The Pine Box - check them out next time you are in Seattle! We hope to make this a regular occurrence at professional meetings and conferences that many CofC alumni attend. Contact us if you would like to let us and fellow alumni know about an upcoming event!

**Charleston Receptions.** We’ve also established Holy City Brewing as Geology’s home away from home. Chris Brown (2005), co-owner and production manager and all the crew at HC have been very generous and
supportive of the department over the years. We retire to Holy City on certain Friday evenings for libations and good company. Join us at our next gathering there - keep an eye out on LinkedIn or Facebook for the announcement!

**Alumni Weekend.** Last May we formally announced the Geology Alumni Endowed Award during alumni weekend. We had an alumni panel discussion for students, alumni and faculty got together for tours of the School Science and Mathematics Building on Calhoun Street, and afterward had a reception in the courtyard. It was exciting to catch up with so many alumni. Thanks to Mike Passarello, Emily Sekula, and Karen Black leading the effort on the Alumni Endowed Award fund and for so much inspiration. Thanks also to James Miller and Jim Weeg for joining the alumni panel. CofC President Glenn McConnell stopped by for the event and was impressed by our awesome alumni!

**Alumni Reunion Tour.** Last but not least, we are thrilled to announce the Geology Alumni Reunion Tour from June 3-10, 2018! We will hit our favorite stops in southern Utah so alumni can relive the sights, sounds, smells (van funk?) from Field Studies. We’re especially interested to reach out to pre-1989 alumni who graduated before the Field Studies course started. We have convinced Dr. Bob Nusbaum to come out of retirement to lead this week-long trip. An email newsletter with details was sent out on January 24th, but information can also be found [here](#). Our intention is to offer similar events for alumni in the
future to reconnect and keep folks engaged with the department. We feel engaged alumni will
be more likely to contribute to Geology and benefit our students and department. Other trips
are in development!

**Final Thoughts, and Future Work**

We are incredibly fortunate to have such caring and invested alumni. The Geology faculty
continue to work hard giving our students the best chance for success, not just in their courses,
but to help them achieve their longer-term goals as well. Given that undergraduate research,
field experience, and conference presentations are such desirable factors in graduate school
acceptance and job opportunities, these alumni efforts are making an incredibly positive
difference!

Our future plans include an expansion on field studies courses; recently the faculty have
approved three courses that have been successfully run as Special Topics: Geology and
Paleontology (Dr. Manning); Geology and Environmental Geosciences of Africa (Dr. Ali), and
Geology and Water Resources in the Developing World (Drs. Vulava and Callahan). As we
continue to support Field Studies in the western U.S., we have built upon the strengths of our
faculty throughout the department to provide similar field experiences for Geology students.
One of the goals of the Geology Alumni Endowed Award is to support students to attend field
courses, and while the fund matures we have leveraged other resources to provide student
scholarships for all field courses. Our ultimate aim is to support any student wishing to attend
Field Studies in any and all formats as appropriate for their program of study and their future
goals.

**Future Events**

**Raleigh, NC Alumni Event: April 7, 2018.** Justin Peers (2013) is organizing a weekend event at a
property near Raleigh on April 7, 2018. Barbecue, beverages, and reminiscing with fellow
Geology alumni, and there is plenty of room for camping for those interested. More details will
be coming soon; stay tuned to the Geology webpage, Facebook, and Linked In.
Alumni Weekend Event: May 4, 2018. We had so much fun last May for Alumni Weekend we’re doing it again! Save the date -- Friday May 4, 2018. We will have an alumni discussion panel for students, an update on the Alumni Endowment, and a reception for alumni with faculty, students and friends of Geology. Keep an eye out for information about this event!

Support College of Charleston Geology

You may be aware that many companies and organization have donor-matching programs for their employees. First- and second-quarter times of the year may bring added incentives to support philanthropic activities. Please remember CofC Geology when reviewing your plans! See our webpage for more information, and thank you!

Stay in Touch!

Please reach out to us and let us know how we can help improve CofC Geology. We are on LinkedIn, Facebook, Instagram, and as always you can call or email me directly. I look forward to hearing from you!

Sincerely,

Tim Callahan. Professor and Chair of Geology and Environmental Geosciences

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