



COLLEGE of
CHARLESTON

SCHOOL OF SCIENCES
AND MATHEMATICS

Dr. Michael J. Auerbach, Dean
Winter 2017



IN THE SPOTLIGHT: GEOLOGY & ENVIRONMENTAL GEOSCIENCES

Young Alums Become “Rock” Stars to Undergrads Seeking Experiential Learning

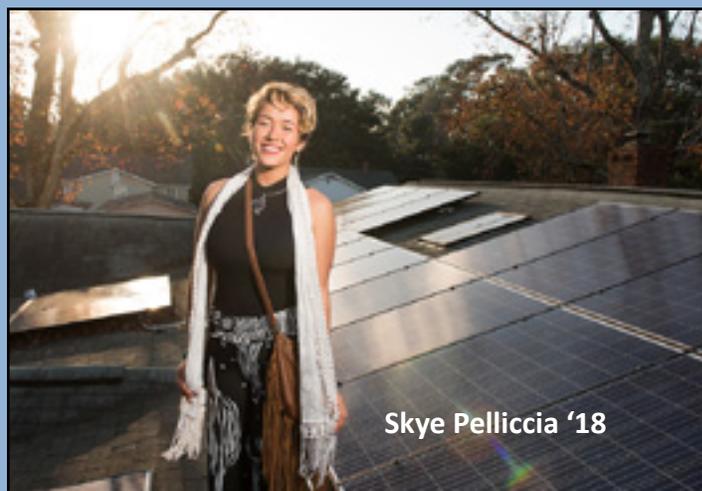
What do seven (and counting) College of Charleston geology graduates from the 2000s who live in Texas have in common – besides the obvious? They all banded together with the goal of raising more than \$360,000, of which they have raised nearly 30 percent, to establish the Geology Alumni Endowed Award in the School of Sciences and Mathematics. These young graduates have the common objective to enable undergraduate students to participate in field research and present at professional conferences that will facilitate their post-graduate and career goals.

The effort is led by Michael Passarello '08, Emily Sekula '05, and Karen Black '10, who were inspired to establish this award and motivate others to support the initiative because they all had transformational undergraduate experiences at the College. They also realized what a unique experience they received here because of the incredible faculty/student bond that the department has created.

Please continue to follow this developing story for information on how you can help support this growing fund.

**T. Rex Leaves The
School of Sciences
and Mathematics to
Take Up Residence in
Addlestone Library**

Geology Student’s App Promotes Solar Power



Skye Pelliccia '18

Junior Skye Pelliccia has designed a [new app](#) aimed at helping property owners on the Carribbean Island of St. Thomas understand the potential benefits of solar panels for their specific home or business. In 2009 legislature was passed in the U.S. Virgin Islands to require that 30 percent of its peak demand energy-generating capacity come from renewable resources by 2025. Pelliccia’s project was conducted through a partnership between the College and the University of the Virgin Islands. Since it’s launch, the Geological Society of America selected the project for presentation at its annual conference this past September and there is interest in adapting the app to promote solar potential of structures in other communities, including Charleston, S.C. [Read more.](#)



New Center for Coastal Environmental and Human Health at SSM

The College of Charleston currently has a nationally-recognized Master's degree program in Marine Biology, a robust Master's degree program in Environmental Studies, as well as a heavily subscribed undergraduate minor in Environmental & Sustainability Studies. The Center for Coastal Environmental and Human Health (CCEHH) will play a critical role as a point of contact for faculty whose research interests include aspects of the interface between environmental and human health. This should result in enhanced interdisciplinary, intra-and inter-school collaboration with an associated increase in grant activity which will provide additional support for both faculty scholarly work and student participation in research. In addition, the Center will facilitate linking the college faculty with those other institutions in the US and abroad who are conducting preeminent research and education in the environment-health areas.

Dean Names New Director

Dean Michael Auerbach has named Dr. Paul Sandifer as director of CCEHH. Dr. Sandifer is a coastal ecologist with a broad background in research, natural resource management, science policy, and the intersection of marine ecosystem health and human health. His prior career includes nearly 12 years in NOAA, where he served as a Senior Scientist, Science Advisor to the NOAA Administrator, Chief Science Advisor for

NOAA's National Ocean Service, and was responsible for development of NOAA's Oceans and Human Health Program. Before NOAA, he worked 31 years with the South Carolina Department of Natural Resources where he served in numerous science and management positions including as agency director. Paul has served on numerous committees and boards at state to national levels, including the US Commission on Ocean Policy, Marine Board of the National Research Council, U.S. National Committee for the Census of Marine Life, and Founding Board of Directors of the South Carolina Aquarium.



Dr. Michael Auerbach first joined the College of Charleston faculty in 1996 as chair of the Department of Biology. He departed at the end of 2000 to become director of Division of Earth & Ecosystem Studies, Desert Research Institute (DRI) in Reno, Nevada. In

2010 he returned to College as Dean of the School of Sciences and Mathematics. His main research interests are in population and community ecology. He served as director of the Nevada Renewable Energy Consortium and on the board of directors of the International Arid Lands Consortium, Association of Ecosystem Research Centers and DRI Research Parks, Ltd as well as numerous review panels for the National Science Foundation, the American Association for the Advancement of Science and the National Academy of Sciences.

[Read about the CCEHH at the College Today!](#)



Science Students Honored for STEM Research

particles, questions have begun to arise about their potential impact on the environment as these everyday items are discarded.

Roberson's research with physics professor Ana Uribe aims to better define the factors at play in the evolution of planetary systems. The pair ran computer simulations to assess the rate of migration of a forming planet toward its parent star based on gas density within a protoplanetary disk, a ring of matter, including gas and dust, from which a planet may eventually form.

Students Sondrica Goines and Wendell Roberson were recognized at the Research Bound in STEM workshop, which recently took place at Georgia Tech in Atlanta. CofC took the top spots in two of three categories in the workshop's research poster contest. Goines placed first in the chemistry category. Roberson placed first in astrophysics.

Goines' study of silver nanoparticles with chemistry professor Katherine Mullaugh is at the forefront of the burgeoning field of nanoparticle research. Silver nanoparticles are found in a variety of consumer goods such as clothes, cleaning products, toys and even medication. With the ubiquitous presence of these tiny

Both students received grants to fund their undergraduate research. Goines' research was supported by a grant through the Howard Hughes Medical Institute. Roberson's research was funded through the College's Summer Undergraduate Research with Faculty (SURF) grant as well as funding through the [SCAMP program](#).

Computer Science Students Finish First and Second in Regional Programming Competition.

On Saturday, November 5, 2016, the College of Charleston was once again one of the host sites for Inter-Collegiate Programming Competition's Southeast Region competition. Division II featured 71 teams from 25 universities.

The College entered two teams: "sudon't" ([Blaine Billings](#), Freshman; [Scott White](#), Senior; and [Griffin Hiers](#), Sophomore), and "And Yet it Compiles" ([Megan Landau](#), Junior; [Alex Swanson](#), Freshman; and [Anthony Morrell](#), Freshman), none of whom had previous ICPC experience.



Once again this year, The College of Charleston had a fantastic performance with team "sudon't" finishing first place at the regional competition site and 5th overall, and "And Yet it Compiles" finishing second place at the regional competition site and 19th overall. This is an amazing accomplishment seeing that three first semester freshmen helped comprise the teams, none of whom had competed before.



Every Valentine's Day, we celebrate the people we love by giving them tokens of our affection. But what about the programs and initiatives that are meaningful to us?

For the whole month of February, we're giving you a chance to #GiveToWhatYouLove at your School of Sciences and Mathematics. The month-long campaign will allow you to enhance student outcomes by making a gift to support the "corner" of the School that was most significant to you.

Help us reach our goal of 50 donors in the month of February! Celebrate a department or the School of Sciences and Mathematics at large with a gift that is meaningful to you. [Make your gift today.](#)

2017

College of Charleston SSM Darwin Week February 12 - 17

Monday, Feb. 12

Astrobiology and Evolution, speaker Christopher Bennett
3:30 p.m., SSMB Sciences Auditorium, Room 129

Darwin's Dilemma, speaker Phil Manning
Sigma Xi Distinguished Lecture, College of Charleston
5:00 p.m., SSMB Sciences Auditorium, Room 129

Tuesday, Feb. 14

Darwin's Dilemma, speaker Phil Manning
Sigma Xi Distinguished Lecture, The Citadel
7:00 p.m., Duckett Hall Auditorium, Room 101

Wednesday, Feb. 15

The Drunken Monday: Is Alcoholism in Modern Humans an Evolutionary Hangover? speaker Robert Dudley
4:00 p.m., SSMB Sciences Auditorium, Room 129

Thursday, Feb. 16

What Darwin Never Knew, Biology Club Movie Night
6:30 p.m., SSMB Auditorium, Room 129

Friday, Feb. 17

Animal Attraction: Bioinspiration and Digital Life, speaker Duncan Irschick
4:00 p.m., SSMB Auditorium, Room 129

MARK YOUR CALENDAR

The 29th Annual SSM Research Poster Session
Thursday, April 20, 2017, 11:30 a.m. - 1:30 p.m.
in the School of Sciences and Mathematics Building