



**WELCOME,
DR. ALICE DOUGHTY!**
GOLDEN UNDERGRADUATE
COORDINATOR &
INSTRUCTOR



ZANDER ROMAN
2021 NSF GRADUATE
RESEARCH FELLOW
(PHOTO: P. STRAND)

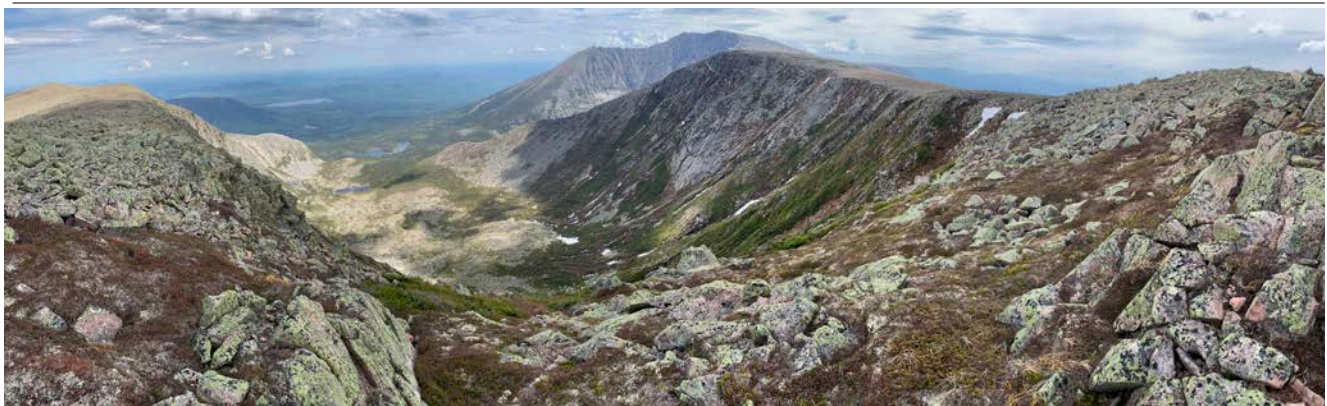


**MINERAL & GEM
DONATION**
SECS TO BUILD A NEW
DISPLAY FACILITY
IN BRYAND



PANDEMIC PIVOT
CLASSES &
RESEARCH CONTINUE
WITH NEW HEALTH &
SAFETY MEASURES

SCHOOL OF EARTH & CLIMATE SCIENCES NEWSLETTER



View from the north peaks of Katahdin, June 2021.

Photo by Aaron Putnam

An eventful year

Throughout the pandemic, we have experienced loss, coped with unprecedented changes in our daily lives, and risen to new challenges. In this letter we share with you some of the highlights from this eventful year. We invite you to explore more news on our website (umaine.edu/earthclimate) and to share your own news with us (katherine.a.allen@maine.edu).

Message from the outgoing Director, Scott E. Johnson

On July 1 of this year, I will have completed 10 continuous and wonderful years of service as Director of the School of Earth and Climate Sciences. When I began this journey on July 1, 2011, we were the Department of Earth Sciences. In 2012 I led an external review of the Department, and the review team supported my request to become the **School of Earth and Climate Sciences**, a name that better reflects our collective strengths and societal relevance.

During my ten years as Director, the School has had many successes that I am very proud of. I could write many pages on this topic, but here I will share just a few highlights. We have **doubled the number of our undergraduate majors**, with the current count at around 50. Given that the 2022 academic year will see one of our largest freshmen cohorts, this growth trend is set to continue.

While enrollment growth was important for our future, we pride ourselves in having a relatively small student/faculty ratio, which has allowed us to focus on quality when it comes to the experiences and opportunities we can provide for our students. We have split our undergraduate degree into three different concentrations, namely Earth Sciences and Climate Sciences in our School, and Environmental Earth and Climate Sciences in the university's Ecology and Environmental Sciences program. This increase in the diversity of our offerings has played an important role in our enrollment growth.

We hired five tenure stream faculty members (**Katherine (Kat) Allen**, **Seth Campbell**, **Alicia (Cici) Cruz-Uribe**, **Andrei Kurbatov**, and **Aaron Putnam**), one Instructor (**Alice Doughty**), and three research faculty members (**Bradfield Lyon**, **Kristin Schild**, and **Dominic Winski**). I am extremely happy to say that one of my last acts as Director has been to sign off on the paperwork transitioning **Kristin Schild** from her research faculty position to a new tenure stream position, which she will take up in September of this year! These hires have strongly positioned us for the future and represent a big step forward in improving the diversity among our faculty – a major personal goal of mine. *(Letter continues on page 3.)*

Donor aims to inspire students' curiosity in Earth & Climate Sciences with a stunning mineral and gem collection



This year, the School of Earth and Climate Sciences was the grateful recipient of over seventy museum quality minerals and gems from an anonymous donor. The samples range in size from single geodes over a meter in diameter to small, "thumbnail" specimens. Exquisite zeolite samples from the Deccan Traps in India and pegmatite minerals from around the world make up a large portion of the donation. Bird and animal carvings made of Maine tourmaline add an artistic note to the collection. Planning is underway for the display of many of the samples in the BGSC first floor lobby and second floor atrium where they will be available for visits by SECS students and the public. Once part of the donor's private collection, the samples were given to SECS with the idea that these beautiful and remarkable specimens would inspire students' curiosity in Earth and Climate Sciences.

~written by Alice Kelley

We raised approximately \$6.0 million in current and planned gifts that have greatly strengthened our program. These gifts allowed us to establish the **Edward Sturgis Grew Professorship in Mineralogy and Petrology**, the **George H. Denton Professorship in Earth Sciences**, and the **Golden Undergraduate Coordinator and Instructor** position. These gifts have also significantly improved our capacity to support our undergraduate majors with the costs of their education, participation in internships and other professional development opportunities, and participation in faculty-led research. We have also been the recipient of a major gift of **museum-grade mineral specimens** (see separate story by Alice Kelley on page 2) that will go on display this coming year in our wonderful building, the Bryand Global Sciences Center. As another final act as Director, I am working with the University of Maine Foundation to finalize a large gift that will, for the first time, provide support for graduate students in the School, in this case students studying Geomorphology or Quaternary Geology. In addition to these major gifts, we have received many additional gifts from our alums and supporters, and I want to express my deepest gratitude to all who have donated. These gifts have been a game-changer for our School, and we hope that you will continue to support us into the future.

During the past ten years we have seen three retirements: **Dan Belknap**, **Joe Kelley**, and **Alice Kelley** who is halfway through her two-year phased retirement. These wonderful individuals have made extraordinary contributions to the School through their teaching, research and student advising, and we are so lucky to still be working with them and benefiting from their presence and contributions.

Finally, and with sadness, I report that one active and six retired faculty members passed away during my term as Director. Their obituaries can be found by clicking on their names. Professor Emeritus **Ed Decker** passed in 2015. Ed was a respected geophysicist, and his research was widely published. Professor Emeritus **Phil Osberg** passed in 2016. Phil was a respected structural geologist, served many years as chair of Geological Sciences, and was instrumental in the early growth and expansion of the department. Professor Emeritus **Brad Hall** passed in 2016. Brad was a respected stratigrapher, served many years as chair of Geological Sciences, and was instrumental in securing our new building, the Bryand Global Sciences Center. Professor **Gordon Hamilton** passed in 2016. Gordon was only 50 years old, and his stellar career was rapidly accelerating, when the snow mobile he was driving in Antarctica plunged into a 100-foot-deep crevasse. Professor Emeritus **Terry Hughes** passed in 2018. Terry was a respected glaciologist, and his research was widely published. Professor Emeritus **Hal Borns** passed in 2020. Hal was a respected glacial geologist, was the primary founder of what is now called the Climate Change Institute at UMaine and created the Maine Ice Age Trail. Research Professor **Roger Hooke** passed in 2021. Roger was a respected glaciologist and geomorphologist, authored a leading glaciology textbook, and offered graduate-level courses in the School without compensation for many years. These six faculty colleagues will continue to be missed long into the future.

It has been the greatest honor of my professional life to lead this wonderful School for the past ten years. As I pass the reins to Professor Karl Kreutz, I look forward to focusing once again on my teaching and research!



Scott Johnson

Director 2011-2021

Student accolades

Alexander Audet, 2021 Best Presentation Award from the Geological Society of Maine

Erik Anderson, 2021-2022 Chase Distinguished Research Assistantship

Jeremy Braun, 2020 J. David Lowell Field Camp Scholarship from the Geological Society of America, 2020-2021 Oscar T. Turner Scholarship

Lauren Carver, 2021 Best Presentation Award from the Geological Society of Maine

Aaron Chesler, 2021 UMaine Summer Dissertation Fellowship, Susan J. Hunter Teaching Fellowship

Chris Dundon, 2021 Kupfer Field Camp Scholarship, Golden Field Camp Award

Jordan Farnsworth, 2021 The Professor Joseph M. Trefethen Memorial Scholarship, Edward Sturgis Grew Earth Sciences Endowment, Center for Undergraduate Research (CUGR) Grant

Chandler Harris, 2021 Golden Field Camp Award, The Professor Joseph M. Trefethen Memorial Scholarship, Edward Sturgis Grew Earth Sciences Endowment

Emily Holt, Center for Undergraduate Research (CUGR) Grant

Michael Keedy, 2021 Angelo Tagliocozzo Memorial Geological Scholarship, Golden Field Camp Award, The Professor Joseph M. Trefethen Memorial Scholarship, Center for Undergraduate Research (CUGR) Grant

Abigail Poirier, 2021 Golden Field Camp Award, Edward Sturgis Grew Earth Sciences Endowment

Samuel Roberts, 2021 Best Presentation Award from the Geological Society of Maine

Alexzander Roman, 2021 National Science Foundation Graduate Research Fellowship, George H. Stone Outstanding Academic Achievement Award, and Angelo Tagliocozzo Memorial Geological Scholarship

Peter Strand, 2020-2021 Chase Distinguished Research Assistantship

Bea Van Dam, First Place Award in the Graduate Student Poster Competition at the 2021 Maine Sustainability and Water Conference

Jesse Walters, 2020 UMaine College of Natural Sciences, Forestry, and Agriculture Edith M. Patch Outstanding PhD Award

Evan Woodson, 2021 Golden Field Camp Award, Edward Sturgis Grew Earth Sciences Endowment



Alexzander Roman



Jeremy Braun



Peter Strand



Lauren Carver



Jordan Farnsworth



Erik Anderson



Dr. Alice Doughty



Dr. Kristin Schild



Dr. Alicia Cruz-Urbe



Dr. Aaron Putnam

Faculty and Staff

New Hires, Tenure, Promotion, Awards

Dr. Alice Doughty joined the School of Earth and Climate Sciences in January 2021 as the new Golden Undergraduate Coordinator and Instructor. She completed her BSc in Earth Sciences ('06) and MSc in Earth Sciences ('08) at the University of Maine before moving to New Zealand to complete her PhD at Victoria University of Wellington ('13). Her research focuses on glacier-climate interactions, primarily in New Zealand, Uganda, and Colombia using a range of computational tools including GIS mapping and numerical modeling of glacier flow. Alice says, "I love teaching ERS 101 because there are students with so many different interests and knowledge about the Earth and it is exciting to see students learn about how the Earth works!" Alice is the new point of contact for recruiting and advising new students. She is very interested in hearing from alums about geology-related internships, job opportunities, and skill development suggestions for our current and future students.

Dr. Kristin Schild was awarded a NASA New Investigator Program Award to develop universal measuring strategies and a predictive model to determine how fast icebergs melt and discharge freshwater into the ocean. Kristin was recently promoted to tenure track and has been teaching Geomatics (ERS 301), a remote sensing, GIS, and GPS course, since she arrived at UMaine in 2018. She completed her BS ('07) at Southern Methodist University, her MS ('11) at the University of Maine, her PhD ('17) at Dartmouth College, and post-doc ('17-'19) at the University of Oregon while also teaching for UMaine. Her research focuses on better understanding ice-ocean interactions and their global impacts, and uses a combination of satellite imagery, drones, and on-the-ground measurements. Kristin primarily works in Greenland, Svalbard, Patagonia, and Alaska, but has also recently begun a Maine coastal erosion project, involving her Geomatics students in data collection, processing, and analysis.

Dr. Alicia Cruz-Urbe and Dr. Aaron Putnam were promoted to Associate Professor with Tenure.

Dr. Bradfield Lyon was promoted to Research Professor.

Congratulations to all!

Pandemic Postcards

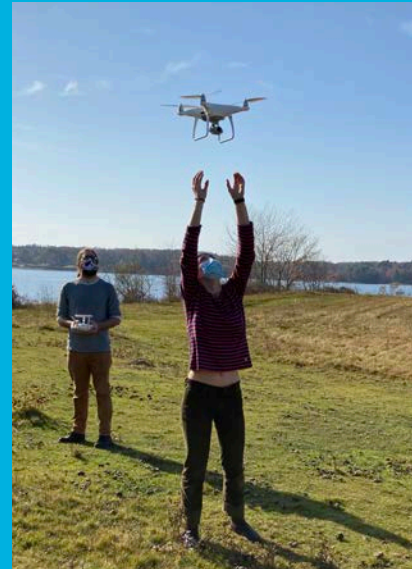
Living and learning during extraordinary times.

Alaska, June 2021



Juneau Icefield Research Program students hiking up Vesper Peak to catch the sunset. *(Photo: S. Campbell)*

Maine coast, 2021



Drone Survey, Maine Middens and Coastal Erosion Project *(Photo above: K. Schild)*



Gulf of Maine, August 2021

Grad Student Madelyn Woods collecting sediment cores aboard the RV Endeavor in the Gulf of Maine *(Photos: K. Allen)*



There are several ways to financially support the School of Earth and Climate Sciences' mission. We have an **undergraduate experience fund** to support a range of student needs; a **professional development fund** to support student participation in research and professional meetings; a **field camp fund** to support student participation in Capstone experiences; and a **technology fund** that enhances state-of-the-art equipment used in student education. Finally, donors are very welcome to suggest ideas of their own, or provide an undesignated gift for general SECS use. For more information, please contact the SECS Director or visit <https://umainefoundation.org> or call 1-800-982-8503 and select "School of Earth and Climate Sciences."

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To access a **digital version** of this newsletter with live links, visit www.umaine.edu/earthclimate.