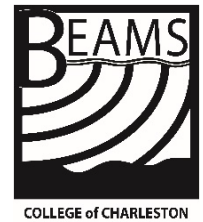


The BEAMS Program Newsletter

Welcome to *The Ping*! In an effort to broadcast all the great work of our BEAMS students and to provide updates on recent and future events, we hope to 'publish' this newsletter twice a year. We welcome all feedback, and hope that others will contribute to future issues of *The Ping*!
Smooth Seas, Doc Sautter



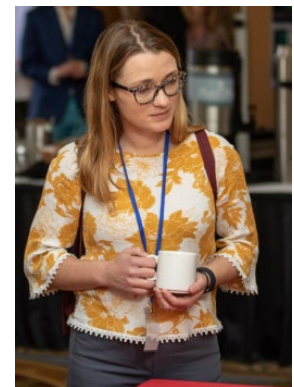
Program News

2024 BEAMS Symposium: Registration for the **2024 BEAMS Symposium** is OPEN!



The BEAMS Symposium will return April 12-14, 2024, with *Early registration ending March 29*. Find information [here](#) and plan to attend! We anticipate there will be as many as 32 students presenting this year, both in poster and oral formats. We hope to increase the numbers of alumni participants (besting 22 in 2023) and other professional attendees. We had 19 companies and government offices represented at the 2023 Symposium!

New BEAMS Faculty Member: We are thrilled to welcome **Dr. Haley Cabaniss** to our department and to the BEAMS Program! Dr. Cabaniss joins BEAMS teaching staff. Haley was a Geology Major who graduated with Honors from CofC in 2015. She finished her Ph.D. in Geology from the University of Illinois, Urbana-Champaign in 2020, primarily studying the Axial Seamount. Her current research includes monitoring deformation of the seafloor in volcanically active regions, and she is excited to teach in our program and conduct research using hydrographic tools. She arrived last summer and dove into teaching GEOL 257 – Marine Geology lecture and lab during the fall semester. This spring, Haley is co-teaching the Seafloor Research (GEOL 339) course with Doc so that she can take it on in the Fall 2024 semester after Doc retires from teaching. Haley and Leslie will co-direct BEAMS through May 2025, when Haley will assume the entire role of BEAMS Director, as Leslie/Doc migrates into *full* retirement!



Haley's partner Dr. Michael DeLucia has also been hired as a full time adjunct, teaching intro lectures and labs. Welcome Haley and Mike!



Explore the Seafloor Website: We invite you to explore the updated and expanded BEAMS website, [Explore the Seafloor](#). On the site you can learn about the [BEAMS Program](#) and BEAMS Symposia (2022-2024), examine student research posters (dating back to 2010), visit highly visual documentaries by students about their recent field and internship experiences (more to come!), and view movies and image galleries made by our students using ROV dive video footage of the deep seafloor collected by the NOAA Ship *Okeanos Explorer*. BEAMS Student Intern Ava Stewart has been working with Doc to create new pages and update all the research projects.



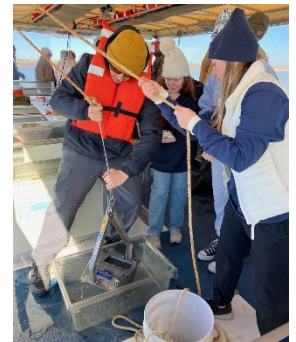
Viz Lab Expansion: The Geology Department recently acquired 4 additional computer stations for the Viz Lab, allowing us to increase the number of students taking **Seafloor Research** and other upper-level courses each semester to 12.

Multibeam Sonar Data Acquisition Cruise:

BEAMS offered students a one-day data acquisition cruise aboard the pontoon vessel *Caretta* (owned by Barrier Island Ecotours, Isle of Palms) in December. This 4-hour excursion was a ‘wet run’ of a course we hope to offer each semester, now that we have found a local vessel we can lease for training. The course will allow students to learn mobilization, line planning,



patch test/calibration, data acquisition, sediment grab-sampling for ground truth, post-processing, and reporting. 10 students, 2 faculty, and 3 professionals participated on this short cruise. We are so very grateful to **Bill Busey of Norbit** (at left) for supplying the MBES and volunteering his time to train our

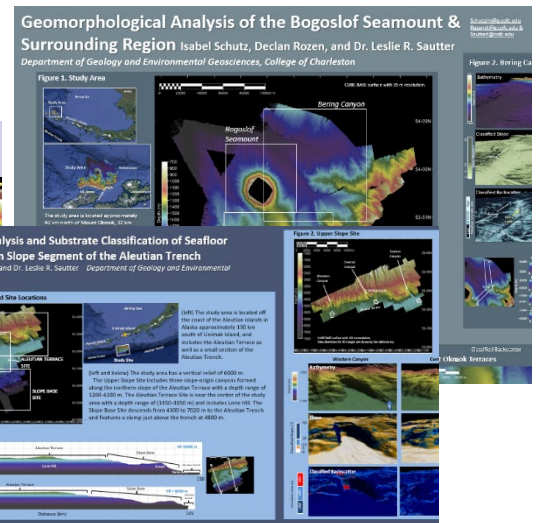
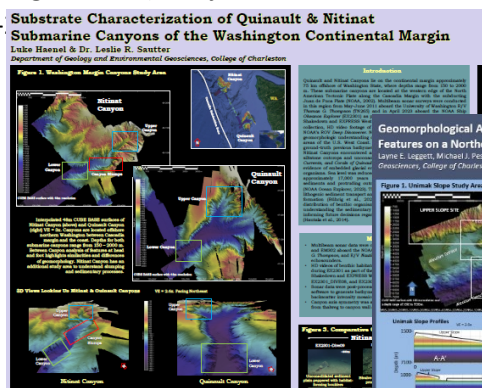


faculty and students, to alumni **Ransom and Lauren White of Blue Dot GeoHydrographic** for supporting the boat time, to **eTrac’s Will Sautter** (at right) for assisting on the boat and in the lab afterwards, and to alumnus **Josh Mode of Caretta Hydrographic Solutions** (front right of group photo) for catalyzing and collaborating with Haley Cabaniss and Lauren Maurizio to lead the opportunity! (See Ava Stewart’s StoryMap [here.](#))

2024 Ocean Sciences Meeting – New Orleans: 11 BEAMers (8 undergrad, 1 graduate student and 2 December graduates) will join Doc Sautter at this bi-annual conference February 19-

the ocean exploration session. These geology and marine biology students are ready for the challenge of presenting their work to a professional audience! We are grateful for conference registration support from the CofC School of Science, Math and Engineering, and to the Matt Christie BEAMS Student Memorial Fund for supporting much of their travel expenses.

Professional conferences are incredible experiences for these young scientists, and we encourage our BEAMS Alumni to continue to contribute to the Matt Christie Fund. The students will also present their posters at the BEAMS Symposium in April. Let us know if you will be at the meeting! We present Wednesday afternoon, Feb. 21!



The BEAMS Program is GROWING! *Current Stats as of January 2024:*

Since 2007, **242 students have become BEAMers!** In order to be a BEAMer, a student must complete GEOL 239 (Intro. To Seafloor Mapping, or “SeaMap”), GEOL 339 (Seafloor Research), and either GEOL 107 (Intro. to Coastal and Marine Geology) or GEOL 257 (Marine Geology).

- 106 of these BEAMers are women (44%)!
- Of the 198 BEAMers who have graduated, 124 (63%) have pursued some level of employment or graduate school in hydrography.
- Nearly 100% of BEAMS graduates who seek employment find employment within a few months of graduating.

Currently, 36 BEAMers are on campus (i.e., have not yet graduated), as well as an additional 22 “SeaMap” students who are eligible to become BEAMers by completing the additional coursework.

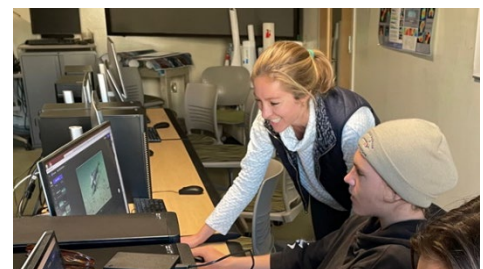


During this 2023-2024 academic year we are having our largest ever ‘BEAMS graduating class’, totaling 25 BEAMers (6 in December 2023 and an additional 19 in May 2024)! Nearly all these students are interested in pursuing either employment or graduate studies in some area of hydro.

(Left) Alumni, Faculty, and Current BEAMers at the 2023 BEAMS Symposium

BEAMS’ Teaching Team is Also Growing! In addition to our full-time faculty members Dr. Haley Cabaniss (see page 1) and Dr. Scott Harris, and Emerita faculty Dr. Leslie ‘Doc’ Sautter, alumni Lauren Maurizio, Jennifer Kist, and Bailey Horn are also extremely valuable adjuncts teaching in the program.

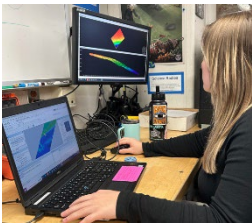
- **Lauren Fuqua Maurizio (Geology ‘02)** has been a full-time adjunct in the Geology Department for several years, but now splits her time between managing projects with Blue Dot GeoHydrographic and teaching GEOL 239 – Intro to Seafloor Mapping (each semester). She also teaches GEOL 107 – Intro to Coastal and Marine Geology, a strong recruiting pathway for new Marine Biology and other majors into the BEAMS Program.
- **Jennifer Kist (BEAMS ‘12)**, of the US Army Corps (Charleston District) has taught Ocean Characterization and Mapping (GEOL 395/495) as an adjunct instructor once per academic year for the past 5 years. This course has been a program changer, as it introduces our advanced students to ArcGIS, Hypack, Fledermaus, FMGT, while broadening and strengthening their hydro knowledge and abilities.
- **Baily Horn (BEAMS ‘19)** recently finished her M.S. in Environmental Sustainability and Studies at the College of Charleston. She now works with the USACE and has begun to teach as an adjunct in the BEAMS Program!. This semester she is teaching *Explore the Seafloor* (see Curriculum Updates, below)



198 # BEAMers who have already graduated		
<i>Of the GRADUATED BEAMers...</i>		
#	%	
124	63	have entered the hydro workforce
57	29	women have entered the hydro workforce
25	13	have gone on to grad school
45	23	have been hired as contractors
111	56	have had full time positions
24	12	NOAA full time positions
87	44	non-NOAA full time positions

Summer 2023 Highlights

NOAA Hydrographic Training Cruises: 10 CofC BEAMS Program students participated in one (or two) of 4 legs of the 2023 [NOAA Ship Nancy Foster](#) hydrographic training cruises. These cruises were offered by the [NOAA Office of Coast Survey](#) with the purpose of training students in multibeam sonar data acquisition and post-processing. Between 8 and 9 students participated on each cruise, hailing from three institutions that offer hydrographic programs. Students were a mix of undergraduate students (mostly from CofC) and graduate students from the University of South Florida's Center for Ocean Mapping and Innovative Technologies (COMIT) and the University of New Hampshire's Center for Coastal and Ocean Mapping (CCOM) / the Joint Hydrographic Center. One leg was led by **Howie Meyer (BEAMS '15)** who is working towards his Master's degree at UNH, and **Margaret Hanley (BEAMS '22)** participated as a University of South Florida graduate student! This was the first time that NOAA Coast Survey has coordinated such a robust collaborative training experience with academia. The success of the summer 2023 cruises will hopefully generate additional ship time in support of training future hydrographers! For an overview of the hydro training cruises (by Ava Stewart), go [here](#).



Summer Internships: Several students had excellent summer internships, a few of which are highlighted below:

- **Jacob Stock, Abby Satterwhite, and Griffin Miles** interned with [eTrac](#) (a Woolpert Company) in San Fran Bay and Alaska. 2022 graduate, **Margaret Hanley** (currently a graduate student at USF) was also an intern. (photos at right)



- **Miles Thompson** interned with [eTrac](#) in the Chesapeake Bay area, mapping portions of the York River (photo at left). Go [here](#) to see his story.

- **Anna D'Agostino** (at right) had an incredible experience sailing on board the sailing research vessel *Marie Tharp* with the [Ocean Research Project](#), mapping uncharted waters of the western fjords of Greenland and across to the Labrador Sea. (See her story [here](#))





- **Eryn Faggart** and **Ava Stewart** (shown at left) interned as volunteer survey technicians aboard the NOAA Ship *Nancy Foster* for a 2-week mapping cruise in support of the [NOAA Mesophotic and Deep Benthic Communities Restoration Group](#)'s work in the Gulf of Mexico. (see Ava's StoryMap [here](#))

- MES Graduate student **Trey Gillespie** continued to contract with NOAA Ocean Exploration as a mapping lead, sailing several legs in the Pacific aboard the NOAA Ship *Okeanos Explorer*. During one of his cruises, part of the expedition [West Coast Exploration](#), NOAA hosted a live interaction with our BEAMS students! (Trey is shown on the left in the image at left).



Where Did Our 2023 Graduates Go?

- [GeoDynamics](#) (an NV5 company) won the prize this year for hiring the most BEAMers! **Bosie Stalvey**, **Abby Satterwhite**, **Hannah Berkimer**, and **Shelby Maier** are now full-timers, joining at least 5 other full time BEAMers.
- [Blue Dot GeoHydrographic](#) added **Sean Munson** and **Ben Ross** to their contractor list, joining several other BEAMS alumni.
- **Bailey Horn** who was a BEAMS undergrad (BEAMS '19), graduated from the Masters in Environmental Studies Program and joined the Charleston District office of the [US Army Corps of Engineers](#). Bailey is also teaching as an adjunct instructor in our program (see below)!
- **McHenry Jackson** was hired by [Oceaneering](#), as an offshore surveyor and data analyst.
- **Anna D'Agostino** now works for [Fugro](#), with a great job in Aberdeen, Scotland, after an amazing summer surveying uncharted waters in Greenland fjords (see story, above).
- [Cashman Dredging](#) recently hired December graduate, **Declan Rozen**. He's the company's newest Field Engineer.
- [3D at Depth](#) hired **Sean Maloney**, also a December graduate.

BEAMS Alumni Updates

Spotlight on BEAMS alumna, Hayley Drennon (BEAMS '18):

Hayley is a Senior Research Staff Assistant at Columbia University's Lamont-Doherty Earth Observatory, working with Dr. Vicki Ferrini in the Seabed 2030 initiative. Last summer Hayley was the lead



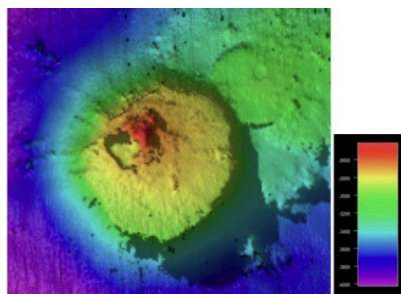
mapper during an exciting expedition onboard Schmidt Ocean's vessel, R/V *Falkor*. The scientific team discovered a new hydrothermal vent on August 2, 2023, documented here: "[Unlike Anything Else on Earth | Hydrothermal Vents of the](#)

[Western Galápagos](#)"

(continued on the next page)

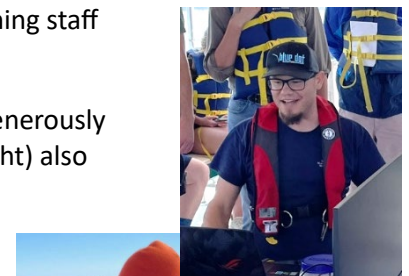
Hayley was also featured in a recent article, "[Massive New Seamount Discovered in International Waters Off Guatemala](#)". So much to explore, so little time!

You make us proud, Hayley!



Alumni Giving Back to BEAMS (May 2023 – Feb 2024) In addition to our alumni teaching staff (page 3), several alumni *have also recently contributed their time to the program.*

- **Ransom White (BEAMS '07)** and **Lauren White** (Blue Dot GeoHydrographic) generously supported the boat-time for the Data Acquisition Day (page 2). Ransom (at right) also piloted a day-cruise on the SCDNR vessel in May 2023.
- **Josh Mode (BEAMS '07)** (right) returned from Ecuador to work on our Data Acquisition Day cruise (page 2). Josh continues to work with us to help raise funds for the program while growing his LLC, Caretta Hydrographic Solutions.



- **Chryssy Hefron Maschmeyer (BEAMS '13)** (left) visited campus during the Fall Alumni Weekend and spoke to Marine Geology and other BEAMS students about "Career Perspectives". She is Operations Standards & Talent Lead with 3D at Depth.

Alumni Shots – *We love to hear from our alumni and often receive photos! Keep 'em coming!*

- Geodynamics' BEAMS alumni **Matt Hughes, Hannah Berkimer and Justin Peers (BEAMS '13, '19 and '11, respectively)** worked together this past summer.





BEAMS Curriculum Updates – Courses and Workshops

Courses Offered (Fall Semester 2023)

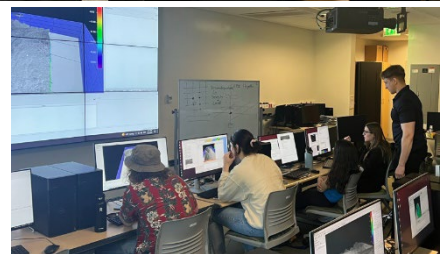
- Doc offered **Seafloor Research (GEOL 339)** in the newly expanded Viz Lab. In the fall semester, all students worked with 2023 data from the Pacific collected by the NOAA Ship *Okeanos Explorer*. In the last several years, student projects were focused on *Okeanos* data from the Blake Plateau and Mid-Atlantic Ridge.
 - 11 students completed the course (5 Marine Biology majors and 6 Geology majors). These students are now full-fledged BEAMers! Congratulations!
 - 6 research posters were generated and will be presented at the 2024 Ocean Sciences Meeting (New Orleans, February) and the 2024 BEAMS Symposium (Charleston, April).
- **Introduction to Seafloor Mapping (“SeaMap” – GEOL 239)** was taught during Express II (1/2 semester) by alumna Lauren Maurizio (Blue Dot Hydrogeo). Students who complete SeaMap are affectionately known as either “SeaMappers” or “WannaBEAMers”!
 - 13 students completed this condensed and intense course.
 - 9 of these students have opted to continue their hydrographic training by enrolling in spring semester’s Seafloor Research (GEOL 339) course.
- Our advanced hydro course, **Ocean Characterization and Mapping (GEOL 395/495)**, taught by alumna Jennifer Kist (USACE) has been offered once per academic year for the past 5 years. In the fall semester, students worked with Hypack, Qimera, ArcGIS, and Fledermaus, generating StoryMaps of their research projects.
 - 7 BEAMers and 2 grad students (Masters of Environmental Studies and Sustainability program) completed the course. Several will present their work at the 2024 BEAMS Symposium in April.

Courses Being Offered (Spring Semester 2024)

- This semester we are offering **Intro to Seafloor Mapping (GEOL 239)**, or “SeaMap” during Express I.
 - 11 students are enrolled.
- Doc is teaching **Seafloor Research (GEOL 339)** for her last time! This semester Dr. Cabaniss is sitting in and will be very helpful assisting students with interpreting seamount characteristics and other tectonic features. As with last fall’s class, students are using the 2023 *Okeanos Explorer* multibeam data from the Pacific.
 - 12 students are taking the course (5 Marine Biology majors, 1 Computer Science Major and 6 Geology majors).
 - These students will present 6 research posters at the 2024 BEAMS Symposium (Charleston, April).
- Piloted in 2022, we are offering a new **GEOL 395 Special Topics** course, **Explore the Seafloor** (being taught by BEAMS alumna, Bailey Horn) in which 11 students will generate overview highlight movies of the NOAA Ship *Okeanos Explorer*’s Remotely Operated Vehicle (ROV) dives, primarily from the most recent 2023 dives in the Pacific. Students will also generate bathymetric and slope surfaces (2D and 3D) to show the dive track and area geomorphology, and they will use the Dive Annotations to document the biota encountered and characterize the substrate. Each student will generate a StoryMap of all the pertinent info for a dive. The StoryMap will also include a slide show of the biota observed as an additional resource.
 - An example movie generated by Abby Satterwhite last spring semester can be found at: <https://www.youtube.com/watch?v=nD0aHZAPvVU&t=66s>. We’ll have at least 12 additional movies like this created in Spring 2024.

Workshops Offered (Sept 2023 – January 2024)

- In September, **Chesapeake Technologies** generously offered a SonarWiz weekend workshop training, taught by the magnanimous Harold Orlinsky.
 - 12 students and 2 faculty completed the 2.5-day training.
 - 3 of the students conducted 1-credit Independent Studies to utilize their new skills and complete project deliverables.
- **Chesapeake Technologies** also offered a 4-day SonarWiz training course for professionals here on campus December 11-14 (right). This was the third such training course offered by Chesapeake Technologies at CofC.
 - 11 BEAMS Program students took part in the training.
- BEAMS offered a **QPS Qimera** weekend workshop training in late January. Marc Fortner from QPS instructed the 2.5-day workshop. We look forward to offering QPS workshops on a regular basis.
 - 10 students and 2 faculty completed the training.



Announcing: BEAMS Investment Partners (B.I.P.s)



The BEAMS Program has been successful not only because of our faculty, students, and opportunities we provide, but also because of our partnerships in the academic, research and operational marine communities. To continue to grow the BEAMS Program and provide the high-caliber workforce pipeline needed in the marine industry, the College of Charleston is expanding its industry partnerships and securing philanthropic support for BEAMS students and faculty.

Companies and organizations who partner with BEAMS are provided with early access to the next generation of experienced ocean science surveyors through internships, alumni engagement opportunities and one-on-one interaction with top BEAMS students who are about to hit the job market. **BEAMS Investment Partners – B.I.P.s** – will have a competitive edge in recruiting experienced and talented BEAMS graduates, and will gain a competitive advantage in the marine industry and a strong return on investment.

GOLD, SILVER, and BRONZE level B.I.P. sponsorships are 3-year commitments of \$10k, \$5k, and \$2.5k per year, respectively. These critical sponsorships allow the BEAMS Program to plan forward to continue offering all the current activities while generating numerous new field courses and on-the-water opportunities, professional development, and curriculum experiences for our growing number of students.

Join our current BIPS: eTrac, a Woolpert Company (Silver), Rock Bottom Hydro, LLC (Silver), and Blue Dot GeoHydrographic, LLC (Bronze).

Become a B.I.P. today to help GROW the Program! [Click here to learn more.](#)

See you at the 2024 BEAMS Symposium!



Contact Leslie "Doc" Sautter (SautterL@cofc.edu) for comments, questions, donations, or to catch up!