OCEAN EXPLORATION COOPERATIVE INSTITUTE | EXPLORING THE NATION'S BLUE FRONTIER
OCEAN EXPLORATION TRUST | UNIVERSITY OF NEW HAMPSHIRE | UNIVERSITY OF RHODE ISLAND
UNIVERSITY OF SOUTHERN MISSISSIPPI | WOODS HOLE OCEANOGRAPHIC INSTITUTION

oeci

## Hello Ocean Explorers!

For this ***Ocean Exploration Cooperative Institute (OECI)*** Newsletter, I am stepping in for Adam who is currently at sea on the E/V *Nautilus.*

We wanted to use this month's newsletter to say "thank you". The CI wouldn't exist without the support of NOAA's Office of Ocean Exploration, which not only funds our research but is a valued collaborator. The opportunities that NOAA Ocean Exploration has provided and the trust they routinely show in us to execute our mission is something that we are very grateful for.

We are also thankful for the hard work of our OECI partners and I'd like to share just a few varying examples of these exceptional contributions. Without the University of Southern Mississippi-led internship program, we wouldn't have met Tuskegee University's, Darrielle Williams, who participated in the hunt for the SS *Norlindo* this past summer aboard the R/V *Point Sur.* Darrielle was a joy to work with and we are thankful for the chance to get to know her. I didn't think a robot would make the list but DriX, an Uncrewed Surface Vessel operated by the University of New Hampshire's (UNH's) Center for Coastal and Ocean Mapping, has made quite an impact in a very short time. DriX is fast, agile, and collaborative all while producing exquisite data, and we are thankful for the team at UNH and the manufacturer iXBlue for bringing this capability to the OECI. Woods Hole Oceanographic Institution (WHOI) led this year's technology demonstration and blew us away with a successful test of remote hybrid ROV/AUV operations. We are thankful for WHOI providing a glimpse into a future where ocean exploration may be accomplished from the comfort of a dorm room (a student in their room actually collected a push core sample using a virtual reality interface)! And, of course, an unsung hero to the success and future of the CI is Brenda Moyer, a Scientific Research and Grant Assistant at the University of Rhode Island (URI), who is able to account for every penny of grant funding but also can find a way to get "yes" in our very dynamic organization.

A final thank you goes out to the team at the Ocean Exploration Trust (OET) and the good ship *Nautilus.* As our primary exploration platform, the E/V *Nautilus* is interwoven into many of the OECI's most audacious goals and we are thankful for having access to such a fantastic platform not only for exploration but for telling our story. Supporting *Nautilus* and the OECI at large, the media and production efforts of URI's Inner Space Center (ISC) have taken our engagement activities to the next level - thank you OET and ISC!

Congratulations to all on a great year, and a sincere thank you to all of the OECI's collaborators. Happy Holidays!

All the best,
Jason

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## OECI-focused NOAA Science Seminars- tune in TODAY!


We hope you will join us for the sixth **and FINAL OECI NOAA Science seminar**, which will take place **at 3pm ET, TODAY, December 15, 2021** This seminar, *NOAA OECI: Exploring Volcanoes Under the Sea,* will stream live from the Ocean Exploration Trust's E/V *Nautilus*, which is currently conducting the first exploration of the Chautauqua Seamounts in the north Pacific, south of the Hawaiian islands. Join OECI Director, Dr. Adam Soule, and other members of the URI/GSO/ISC team to learn how we explore, why we explore, and where we explore volcanoes under the sea.

The fifth OECI-focused NOAA Science Seminar took place on , **November 17, 2021.** Seminar presenters from the Woods Hole Oceanographic Institution (WHOI) provided an an overview of the new *Orpheus* class of autonomous underwater vehicles. These vehicles can greatly reduce the complexity and risk of accessing hadal depths by combining time-tested, deep-sea technology with advanced location-tracking software created by NASA to enable sophisticated exploration and study of the deep ocean. To watch the YouTube recording of this seminar event, and previous seminars in the series, please visit the **Inner Space Center's YouTube Channel.**


## Announcing the 2021-2022 Bridge to Ocean Exploration Cohort

The **Bridge to Ocean Exploration (BOE) program**, a collaborative effort between the New England Institute of Technology, the OECI, URI, and the ISC, aims to engage diverse and lower socioeconomic status (SES) student populations in Science, Technology, Engineering, and Mathematics (STEM) career paths. The BOE program will provide NEIT students relevant career exposure and experience, especially in Blue Economy sectors that they may not otherwise be aware of.

We received a very strong pool of qualified applicants and are pleased to announce the selection of four NEIT students to participate in OECI-focused projects on machine

learning, data science, interactive web design, and/or 3-D media production and animation. Please join us in welcoming Ryan Plante, Matthew Stanton, Kevin McCue, and Dylan Wavimodier to the OECI community. These NEIT students comprise the first cohort of the pilot BOE program, and are eager to apply their distinct skill sets to OECI activities while also learning about ocean science and exploration.

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## *E/V Nautilus* Update: Lu'uaeaahikiikekualonokai

Through December 20, 2021, the E/V *Nautilus* is exploring the Chautauqua Seamounts, a previously unexplored seamount chain located south of the Hawaiian Islands. The seamounts measure between 15 and 25 kilometers across and rise more than 2 kilometers from the 4-kilometer deep seafloor. The science team onboard, which includes OECI Director, Dr. Adam Soule (chief scientist), and URI/GSO, OECI-funded graduate student, Coralie Rodriguez, will generate high-quality bathymetric maps to identify dive targets, conduct telepresence-connected ROV dives, and collect geological samples for later geochemical analysis.

The geologic origin of the Chautauqua Seamounts remains a question for researchers, and understanding the origin of the Chautauqua chain through geochemical analyses based on ROV-collected rock samples will have significant implications. The expedition name -- Lu'uaeaahikiikekualonokai -- represents the journey to and the work in the kualono kai, or the sea ridges in the Chautauqua seamounts. Moreover, like a kualono, or ridge that offers protection to those within its domain, the Chautauqua seamounts offer important marine habitats that protect various marine animals.

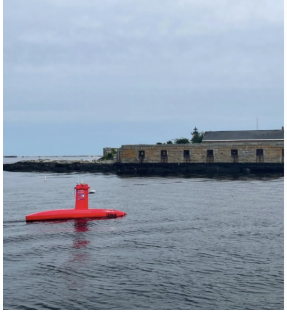
Be sure to follow along with the ship's activities, interact with scientists, and watch live-streamed ROV footage from the expedition on **NautilusLive.org**. This expedition is sponsored by NOAA Ocean Exploration through the OECI.

## Publications and Opportunities

### *OECI-publication in ECO magazine*

Check out the OECI-focused article, *Exploring the Nation's Blue Frontier*, in *ECO* (environmental, coastal, and offshore) magazine, authored by NOAA Ocean

Exploration's OECI Program Manger, Dr. Aurora Elmore, and OECI Director, Dr. Adam Soule. It provides a great overview of the cooperative institute, its goals, and recent achievements.




Exploring the Nation's Blue Frontier

### *American Geophysical Union (AGU) meeting*

The AGU annual meeting is taking place this week through December 17, 2021. If you are a registered participant, please look for presentations by members of the OECI community!

### *NOAA Ocean Exploration Position Announcement: Physical Scientist(s)*

NOAA Ocean Exploration's Expeditions and Exploration (E&E) Division announced the posting of direct hire opportunities for four Physical Scientists, ZP-1301-3 positions, located in either Silver Spring, MD, or Durham NH. These positions will serve as Expedition Coordinators to plan, coordinate, and lead ocean exploration sea-going missions. A full job description, and a link to apply, can be accessed **here**. The **deadline to apply is December 16, 2021**.

### *Ocean Exploration Trust (OET) Position Announcement: Chief Scientist*

OET is currently accepting applications for a full-time Chief Scientist to join the organization's senior leadership team and provide direction and strategy for OET's science and exploration program. This individual can be based in Narragansett, Rhode Island, or remote in the US, in addition to sailing aboard E/V *Nautilus* expeditions. This position is open until filled. Full position and application details can be found **here**.