

NOAA IN THE CARIBBEAN

CONNECTING NOAA & PARTNERS ACROSS THE CARIBBEAN



NOAA in the Caribbean Newsletter - Spring Edition

Hello NOAA in the Caribbean Community,

We are beginning to prepare for our next annual meeting later in the year. If you know someone who would like to attend, please let us know. If you would like to rewatch any of last year's presentations, they are posted on the [Southeast and Caribbean Regional Team's website](#). The recording is available with both English and Spanish subtitles, which you can select in the settings of the YouTube video player.

Should you have questions or want more information, please contact CaribbeanNews@noaa.gov. We hope to see you at our NOAA in the Caribbean Annual Partner Meeting!

Thank you,
The NOAA in the Caribbean Executive Team

NOAA's 2022 Hurricane Awareness Webinars

NOAA's Southeast and Caribbean Regional Collaboration Team (SECART) is pleased to host the Hurricane Awareness webinar series. These webinars are intended to improve the understanding of NOAA's hurricane-related products and services to ensure that our partners, emergency managers, broadcasters, and the public are informed.

(<https://www.noaa.gov/2022-hurricane-awareness-webinars>)

Manteniendo el público informado de eventos peligrosos durante la pandemia **(Maintaining the public informed of hazardous events during the pandemic)**

This webinar will be delivered in Spanish

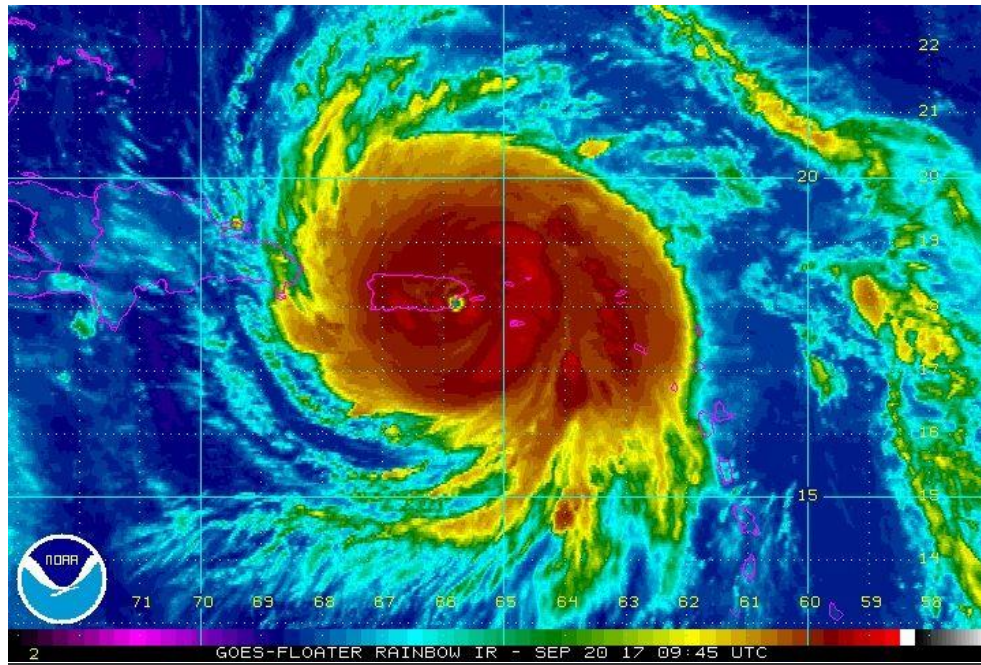
Date: 26 May 2022

Time and duration: 1-2 PM ET (1 hour)

Speakers: Maria Torres, NWS/NHC Public Affairs Officer & External Affairs - Meteorologist

Webinar overview: Los meteorólogos de la NOAA presentarán cómo trabajaron durante la pandemia. (Meteorologists from NOAA will present how they issued forecast products and advisories during the pandemic.)

Registration link: <https://attendee.gotowebinar.com/register/3360210211307557387>



(Photo caption: Geostationary satellite images and surface observations indicate that the center of Hurricane Maria made landfall near Yabucoa, Puerto Rico, around 615 AM AST. Image from NOAA NWS National Hurricane Center Facebook page.)

Beyond Our Borders: Hurricane Forecast Collaboration in the Caribbean

Date: 2 June 2022

Time and duration: 1-2 PM ET (1 hour)

Speakers: Evan Thompson, Director Jamaica Meteorological Service & President, World Meteorological Organization Region IV, and Dr. Cody Fritz, Acting Storm Surge Team Lead, NHC/NWS

Webinar overview: Our partnerships with other countries are key when it comes to issuing forecasts. Ever wonder how it's done? Join us to hear from the speakers how that coordination is done and new storm surge capabilities NHC is undertaking.

Registration link: <https://attendee.gotowebinar.com/register/9147275259339296782>

NOAA Ship *Nancy Foster* Mapping Puerto Rico's seafloor

By: LT Jennifer Kraus, NCCOS Program Office and Headquarters and LT Dale Gump, NOAA Ship Nancy Foster

The National Centers for Coastal Ocean Science (NCCOS) in partnership with NOAA's Office of Marine and Aviation Operations, UNC-Wilmington's undersea research center, and Solmar Hydro conducted the sixteenth year of an ongoing scientific research mission onboard NOAA Ship *Nancy Foster*. They conducted bathymetric mapping and seafloor imaging off the coast of northwest Puerto Rico from 14 March– 2 April 2022. This project was funded by NOAA's Coral Reef Conservation Program and supports conserving and managing diverse coral habitats in the US Caribbean. The NOAA Ship *Nancy Foster* was used to collect high-resolution multibeam

seafloor bathymetry and backscatter, water column echosounder fish acoustic surveys, and seafloor habitat observations/ground-truthing using a remotely operated vehicle (ROV) within the coastal waters of northwest Puerto Rico. For more information on this ongoing project, visit the [project page](#).



(Photo caption: NCCOS Science Team on the back deck of the NOAA Ship *Nancy Foster* (top left), the Undersea Vehicle Program's ROV with a rainbow (top right), and image of a large sponge captured during an ROV dive off the northwest coast of Puerto Rico (bottom). Photo credit: ENS Daniel Lucas)

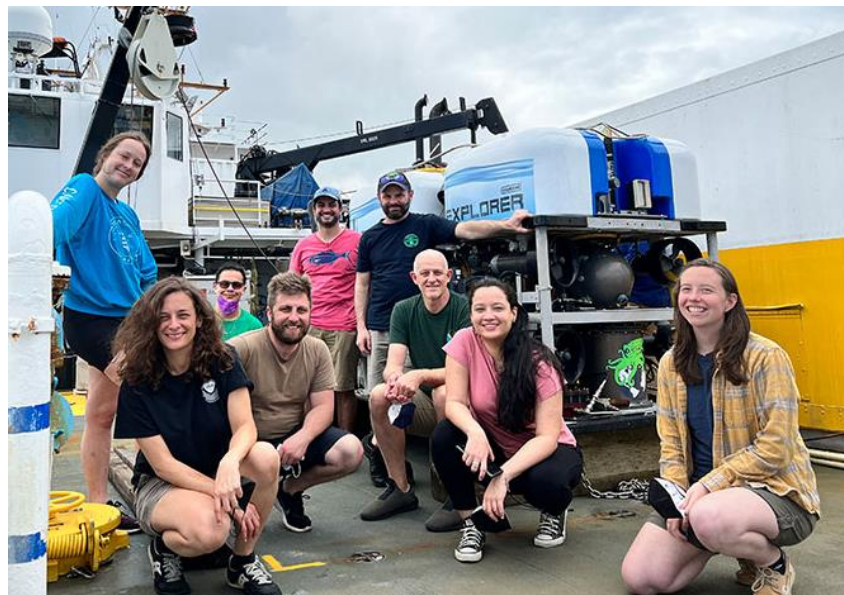
From 9 - 19 April 2022, the Smithsonian Institution's National Museum of Natural History in worked with NOAA Systematics Lab, Temple University, University of Rhode Island, Lehigh University, University of Puerto Rico-Mayaguez, NOAA Ocean Exploration and Research and Oceaneering were working aboard the NOAA ship, *Nancy Foster*. These groups conducted a multidisciplinary research mission to explore and characterize environmental and biological

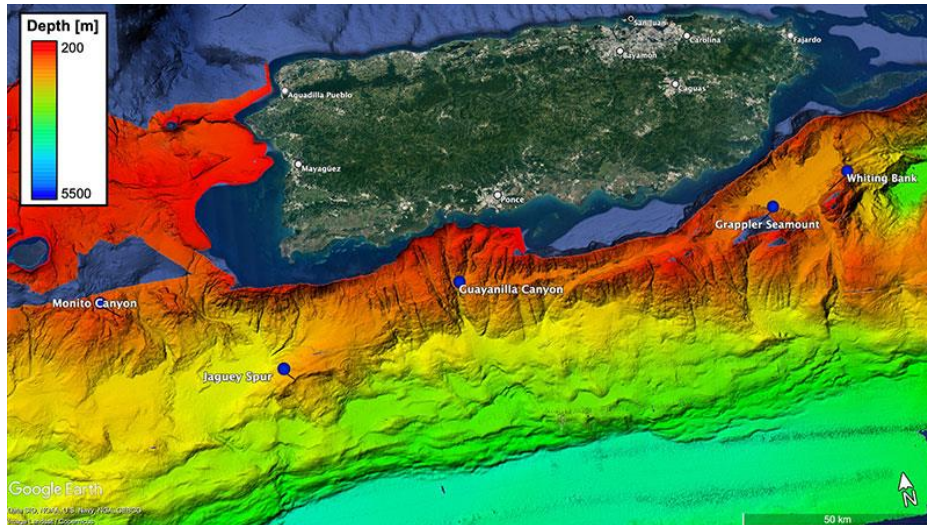
diversity across pelagic and benthic habitats in deep waters off Puerto Rico in the U.S. Exclusive Economic Zone (EEZ). They characterized the multiple dimensions of diversity from the surface to the seafloor and improved predictions of where vulnerable marine ecosystems occur to aid in the proper management of resources.

Benefits of Our Work

The products outlined linked below will provide a critical spatial framework for informing and understanding relationships in coastal coral reef ecosystems (5–1,000 m) within the U.S. Caribbean. Resource managers have expressly identified the need for additional data in the coastal environment, which is exceedingly difficult to collect over large areas other than with ships and aircraft. The U.S. Virgin Islands and Puerto Rico Jurisdictions have identified the need of seafloor mapping data for use in regulatory, management, infrastructure siting, damage assessment, and monitoring design applications. Specific instances include addressing issues related to over-fishing, recreational/commercial fisheries, restoration, land-based sources of pollution, permitting activities, MPA identification, place-based management, coastal intelligence, safe maritime navigation, coastal inundation modeling, marine spatial planning, and other scientific research.

One example of the impact of this work is the recent Caribbean Council proposal to modify closure regulations for three seasonally closed areas off Puerto Rico. Our efforts were critical in collecting information for these closure areas to inform management decisions.





(Photo caption: The 2022 Illuminating Biodiversity in Deep Waters of Puerto Rico science team aboard NOAA Ship *Nancy Foster* (top), and map of the exploration area along the southern coast of Puerto Rico in the Caribbean Sea with a few target locations (bottom). Photo credit: ENS Daniel Lucas)

To follow the work of the NOAA Ship *Nancy Foster*: www.facebook.com/NOAAShipNancyFoster
[Click here](#) to see more photos from the 2022 Illuminating Biodiversity in Deep Waters of Puerto Rico expedition

For more information, contact: LT Jennifer Kraus (Jennifer.kraus@noaa.gov).

CARIBE WAVE 2022 Exercise

By: Stephanie Soto and Christa von Hillebrandt-Andrade, NOAA International Tsunami Information Center Caribbean Office, and Elizabeth A. Vanacore, UPRM, Puerto Rico Seismic Network

CARIBE WAVE was held on March 10, 2022, with the goal of exercising and evaluating communications and the tsunami procedures and programs, as well as promoting awareness and preparedness. The exercise is one of the main activities of the UNESCO/IOC Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (CARIBE EWS). The CARIBE WAVE task team of the CARIBE EWS coordinates the exercise through the NOAA International Tsunami Information Center Caribbean Office with the support of the Caribbean Tsunami Information Center and Pacific Tsunami Warning Center. Two hypothetical scenarios were modeled for this exercise: a tsunami generated by a magnitude 8.0 earthquake located on the Western Muertos Trough, and a tsunami generated by a magnitude 8.3 earthquake located in Northern Panama. It was up to each Member State and territory to choose between the two scenarios and decide the level of official participation and activity for their country.



(Photo caption: Dr. Charles McCreery, PTWC Director, sending out tsunami products during the exercise.)

The Pacific Tsunami Warning Center (PTWC), the Regional Tsunami Service Provider, issued a “dummy” message at 1400 UTC through the different warning systems to test communications with Tsunami Warning Focal Points (TWFP) and National Tsunami Warning Centers (NTWC). Different methods of communications were used to test and disseminate the message: The World Meteorological Organization (WMO), Advanced Weather Interactive Processing System (AWIPS), Aeronautical Information Replacement System (AIRS), NOAA Weather Wire, GEONETCast Americas, fax, email, and social media. According to feedback from the post-exercise survey as well as social media and web posts, the “dummy” message was successfully received. The Central America Tsunami Advisory Center also disseminated simulated products for the Northern Panama scenario to its stakeholders.



(Photo caption: Tsunami evacuation drill in Mexico as part of the CARIBE WAVE 22 exercise.)

According to the Tsunami Zone website (tsunamizone.org), which manages the registration system, almost 410,000 people across the Caribbean and Adjacent Regions registered for the annual tsunami exercise. Most of the participants were from K-12 schools. Local governments, universities, and preparedness organizations also had a high level of participation. Social media platforms, which have become the primary source for communicating tsunami awareness, reached over 1.7 million people worldwide during the

exercise.

CARIBE WAVE has been improving and validating tsunami preparedness since 2011. Tsunamis are high impact, low frequency events and exercises like CARIBE WAVE are crucial to maintaining readiness in case of a real tsunami event. For more information on the exercise, the Western Muertos Trough and Northern Panama scenarios, and exercise reports visit <https://www.weather.gov/itic-car/caribewave22>.

UN Ocean Decade Safe Ocean Lab Highlights Transformative Actions, Coastal Resilience

By: Christa von Hillebrandt-Andrade, International Tsunami Information Center, Caribbean Office

From 5 to 7 April 2022, the Safe Ocean Decade Laboratory for the UN Ocean Science Decade for Sustainable Development (2021-2030) took place with a global engagement of almost 1000 people from over 110 countries. The risk, monitoring, preparedness, governance and social equity of ocean hazards and early warning were explored.

The Safe Ocean Lab was the fifth of seven virtual labs organized in lieu of an in person Ocean Decade Conference. Given the extreme vulnerability of ocean hazards in the Caribbean and Pacific islands and small country states, the Scientific Planning group decided the focus of the lab should be on these geographic regions and the overarching theme of Environmental Justice and Rights. Segments of the lab were held at a Berlin TV Studio, the German Ocean Museum, and the Eco Exploratorio: Puerto Rico Science Museum in San Juan, Puerto Rico where there was a small live audience.

The Core Event included panels and presentations on Preparing for the Unexpected with the Tonga Volcanic Eruption and Tsunamis as a case study. Topics also included the Integrated Coastal Hazard Early Warning Systems and Services in the Caribbean, an overview of Endorsed Ocean Decade Programs and Projects, and a Panel on Environmental Justice and Rights. A recording of the [full Core Event](#) and a [five minute summary of the Core Event](#) are available online.



(Photo caption: Safe Ocean Laboratory Core Event venue at the Ecoexploratorio: Puerto Rico Science Museum with Co-Moderator, Christa von Hillebrandt-Andrade. Photo by Merry Manso)

The Core Event was followed by [20 satellite events](#) including: Further Challenges for Tsunami Warnings, SMART Subsea Cables, NOAA Sea Level Rise Viewer, Establishing a Blue Line: Jamaica Case Study, Multi-annual Tsunami Exercises for a Safe Ocean, Disaster risk communication on Social Media, Vaka Moana: A Sustainable & Safe Blue Pacific Ocean, and Tsunami Ready.

On 7 April, the Safe Ocean Lab came to a close with the [Wrap Up Session](#), which was co-hosted from the Southwest Pacific Islands. It included a panel reviewing the Core Event, reports of selected satellite activities, an artistic speech by Pacific Poet Amelia Rigsby, and closing remarks.

The Accessible Ocean laboratory was held 10 – 12 May 2022, while the final lab on a Productive Ocean will take place on 31 May-2 June. More information on past and future labs is available [online](#). The website to follow other decade activities and sign up for the Stakeholder

Forum, join a Community of Practice, and for the most up to date information on Decade Actions is <https://www.oceandecade.org/>.

Annual Marine Debris Program Art Contest Winner

The NOAA Marine Debris Program holds an annual art contest to reach K-8 students and help raise awareness about marine debris. Marine debris is a global issue and we believe that engaging our youth is an important part of addressing the problem. One of the 2022 winners is third grader K'Moya S. from the U.S. Virgin Islands. They will be featured in the resulting calendar, providing a daily reminder of how important it is for us to be responsible stewards of the ocean. Students are highly encouraged to check out resources on this website for information about marine debris.



(Photo caption: Artwork by K'Moya S. (Grade 3, U.S. Virgin Islands), winner of the Annual NOAA Marine Debris Program Art Contest.)

Announcements

General Announcements:

- 1) **UPCOMING FUNDING OPPORTUNITY:** The passage and signing of the Infrastructure Investment and Jobs Act (IIJA) presents an unprecedented opportunity to make an impact for habitat across the country! The bill provides roughly \$3 billion over 5 years for NOAA, with funding available for habitat restoration, conservation, and resilience efforts including, but not limited to:
 - a) \$491 million to provide funding and technical assistance to restore marine, estuarine, and Great Lakes ecosystems, and to help prevent flood damage in coastal communities. This investment helps protect the safety and well-being of coastal communities by buffering shorelines from erosion, reducing flooding, and removing potentially hazardous structures.
 - b) \$400 million to enhance fish passage by removing barriers and providing technical assistance under the Magnuson-Stevens Fisheries Conservation and Management Act, specifically citing the Community Based Restoration Program. These funds will help protect and restore habitats that sustain fisheries, recover protected species, and maintain resilient ecosystems and communities.
- 2) **FUNDING OPPORTUNITY:** The National Fish and Wildlife Foundation's Fisheries Innovation Fund supports effective participation of fishermen and fishing communities in the implementation of sustainable fisheries in the United States. The Fisheries Innovation Fund releases [two requests for proposals \(RFP\)](#) each year to work towards sustainable fisheries in the United States: a Fisheries Innovation Fund RFP and an Electronic Monitoring and Reporting Grant Program RFP. The deadlines for these applications are June 7, 2022.

In the near future, NOAA's Office of Habitat Conservation (OHC) will be releasing a Notice of Funding Opportunity (NOFO) to solicit project proposals from partners around the country in support of habitat restoration, conservation, and resilience. A weblink to these funding opportunities will be shared through the NOAA in the Caribbean listserv as soon as they are available.

NOAA in the Caribbean Newsletter

If you wish to subscribe to NOAA in the Caribbean's newsletter or the community distribution list, please fill out this [form](#).

If you wish to submit any questions, comments, story ideas, artwork or photographs, please email us at CaribbeanNews@noaa.gov.

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