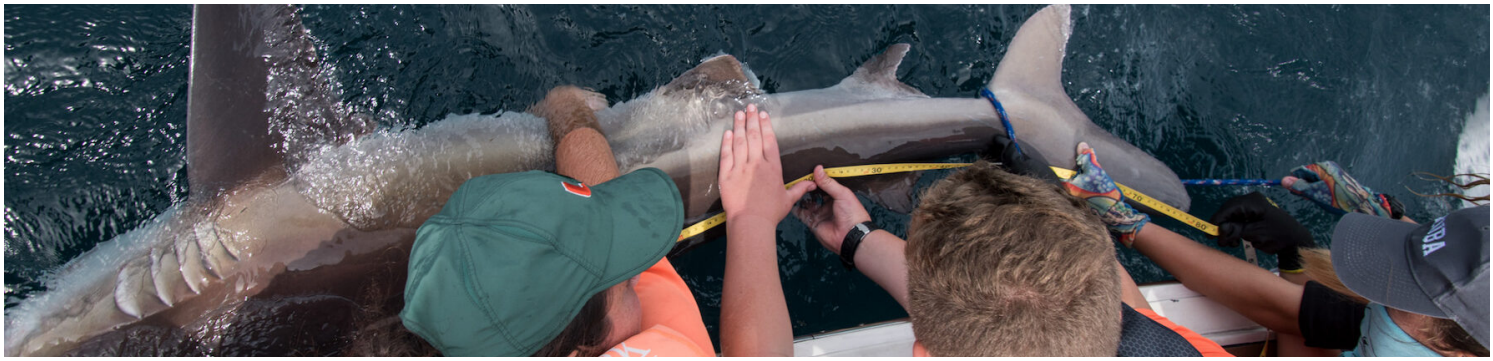
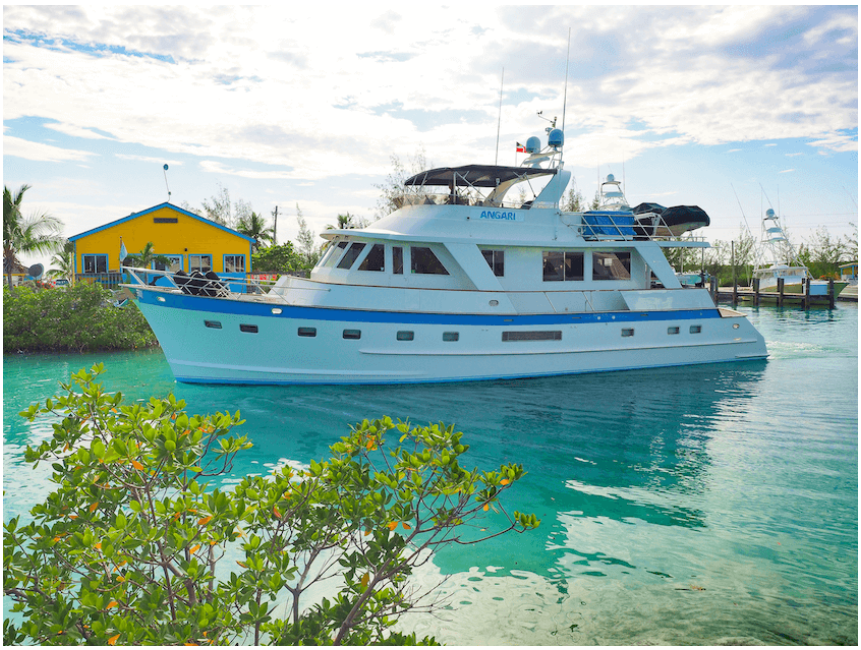


Nonprofit Supports Marine Science and Unites Scientists with Community

FEATURED ARTICLE, ISSUE 63 - AUGUST 2020, STORIES FROM THE SEA, TERRESTRIAL TOPICS, THINGS WE LIKE

By *Rachel Plunkett and Angela Rosenberg*



The research vessel ANGARI heads out to sea on the south side of Cat Island, The Bahamas. Photo by Amanda Waite, ANGARI Foundation.

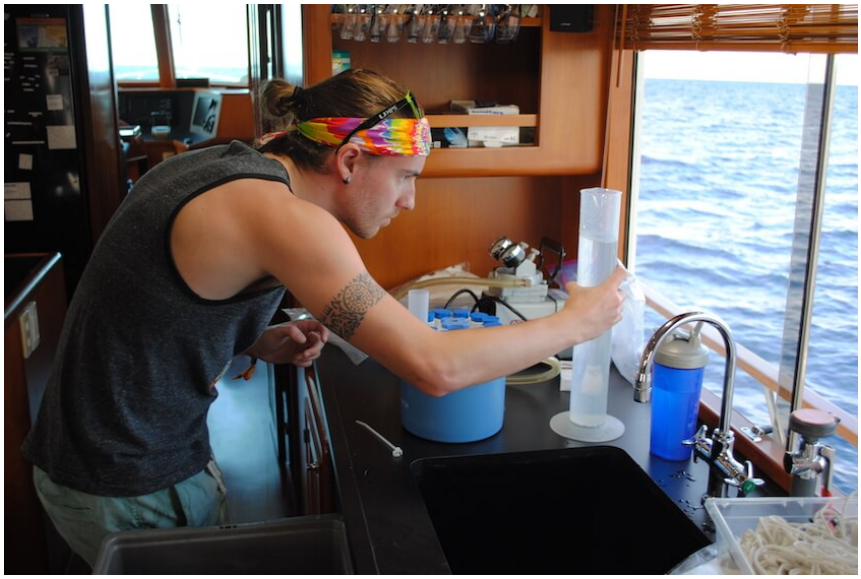
The Research Vessel *ANGARI*

For many marine scientists, at-sea fieldwork is an important part of their research. Some researchers claim they spend as much as 70% of their job aboard research vessels to collect samples and run field experiments. While working on the water may sound glamorous to many, the reality is that working from a research vessel usually consists of long days of hard work, and is most often extremely expensive.

ANGARI Foundation, a nonprofit organization headquartered in West Palm Beach, Florida, offers a unique opportunity for scientists and filmmakers who require working on the water. The luxury research vessel *ANGARI*, captained by the foundation's co-founder and president, Angela Rosenberg, is offered for charter at a minimal cost. Rosenberg explains that while she was completing her master's degree in marine geology and geophysics at the University of Miami's Rosenstiel School of Marine and Atmospheric Science, she realized how expensive it was to conduct fieldwork and observed many scientists struggling to obtain enough funding to support their research. "Offering a vessel at a low rate allows scientists to stretch their fieldwork budget and reserve funds for other essential research needs," said Rosenberg. She continues, "We feel scientists deserve a first-class vessel that is very capable and versatile enough to meet the needs of many researchers. Why not have the best of both worlds?

Captains Angela and Kevin pose for a photo on the stern of R/V ANGARI with coral reef researchers below during an expedition in The Bahamas. Photo by Katie Storr.

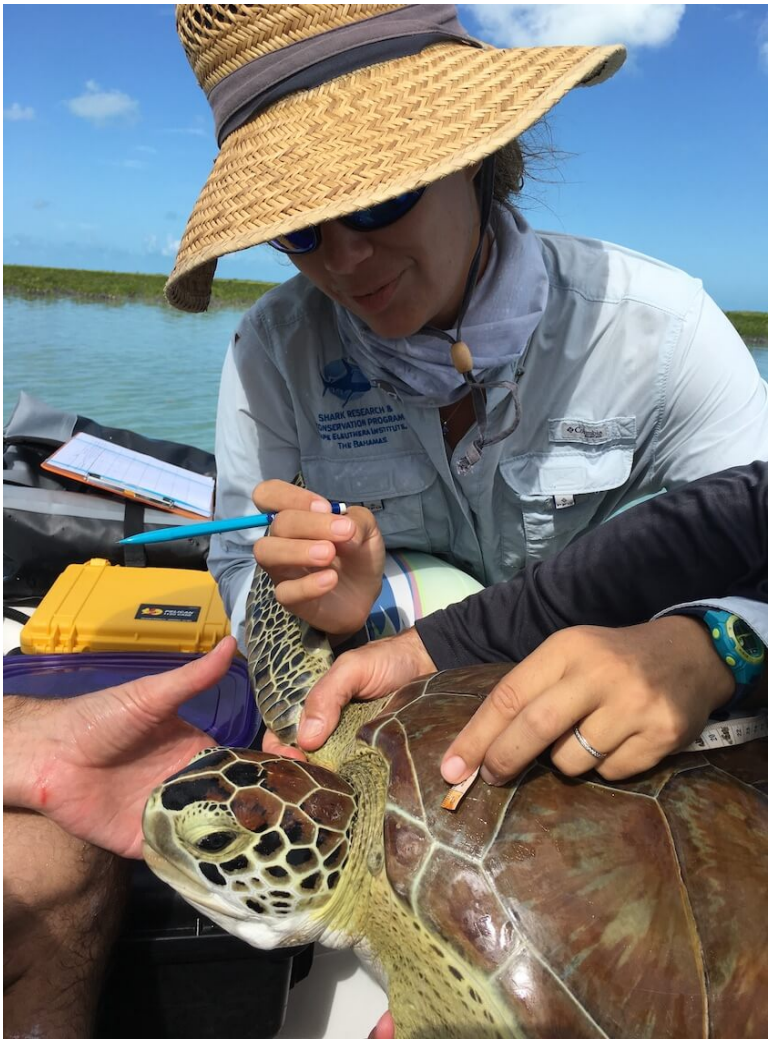
In June 2016, ANGARI Foundation set out to create a multipurpose research platform and acquired a 2001 65-foot Grand Alaskan trawler. The vessel was a pleasure yacht, used by previous owners to travel along the U.S. East Coast from Canada to the Caribbean as well as several trips around The Great Loop. The transformation from a well-traveled pleasure yacht to a functional and luxurious research vessel took just over 3 months. Upgrades included navigation electronics, safety equipment, cameras, communications, salt water pump, dive compressor and SCUBA gear, underwater lights and significant mechanical improvements, including a new, larger generator. Some of the biggest changes were made to the interior of the vessel, like converting the salon to a fully functional indoor laboratory space with chemical grade counters, a deep sink, locking storage cabinets and vinyl flooring. Alterations were also made to some of the staterooms to comfortably sleep six scientists plus crew. Through this three-month refit, "R/V *ANGARI* was converted into an ideal platform for marine science research, film and education expeditions", explains Rosenberg.



A researcher works with seawater samples in R/V ANGARI's indoor laboratory. Photo by Angela Rosenberg, ANGARI Foundation.

Florida Roots with an International Reach

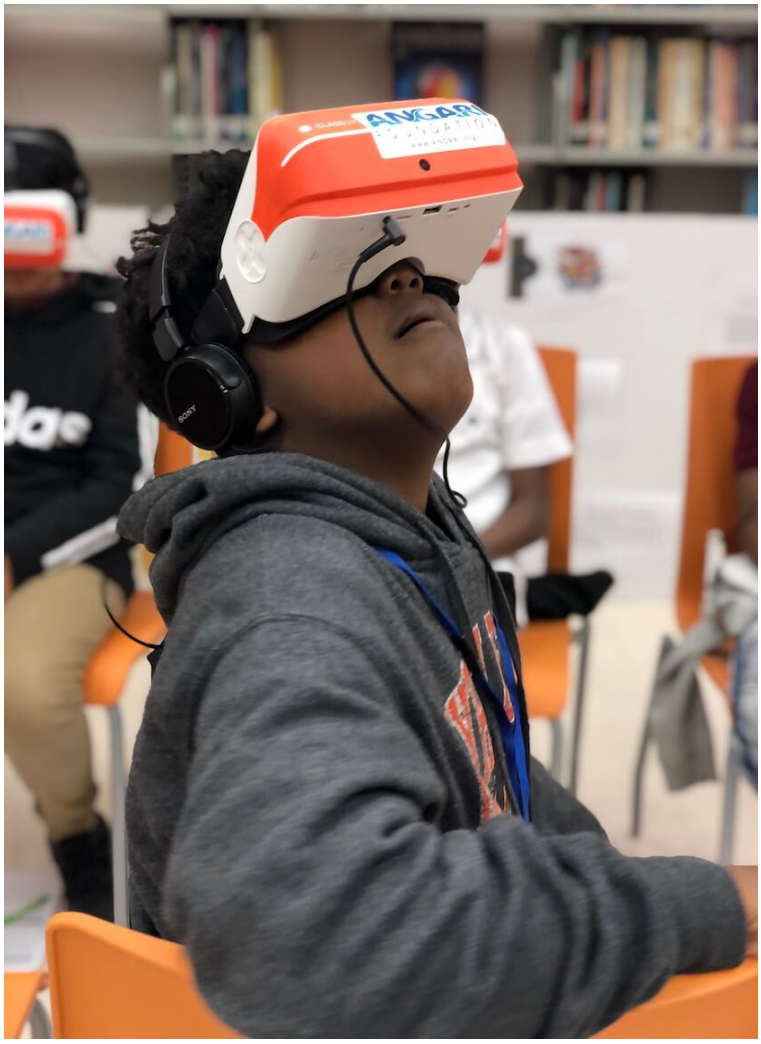
Since her big makeover, R/V *ANGARI* has completed 34 expeditions throughout the East and West coasts of Florida, The Bahamas, Florida Keys and Dry Tortugas. During this time the vessel has accommodated scientists from the National Oceanic and Atmospheric Administration, United States Geological Survey, University of South Florida, Florida State University, Bahamas National Trust, Perry Institute for Marine Science and more. The research conducted from R/V *ANGARI* touches upon many disciplines in ocean science, ranging from studying the concentrations of trace metals in Atlantic sea surface waters to documenting changes in coral reef ecosystems after a Category 5 hurricane, and even supporting testing of OceanGate's record-breaking manned submersible. The vessel has also hosted lm crews and expert science teams for episodes of National Geographic's SharkFest and Discovery Channel's Shark Week.



Scientists measure a green sea turtle aboard R/V ANGARI's 14 ft. tender. This work was performed under Bahamas research permits. Photo by Angela Rosenberg, ANGARI Foundation.

Harnessing the Power of Media

The founders of ANGARI Foundation feel it is not enough to just support scientists in the field, but equally want to share their significant research and promote the importance of science back home. ANGARI Foundation produces impactful ocean media about the critical research that takes place onboard R/V *ANGARI*. The nonprofit aims to help scientists share their research in a way that encourages ocean stewardship and improves public understanding. The ANGARI team works to promote scientists and increase community engagement in their research by publicly sharing expeditions and scientific findings using websites, social media channels, press and film.



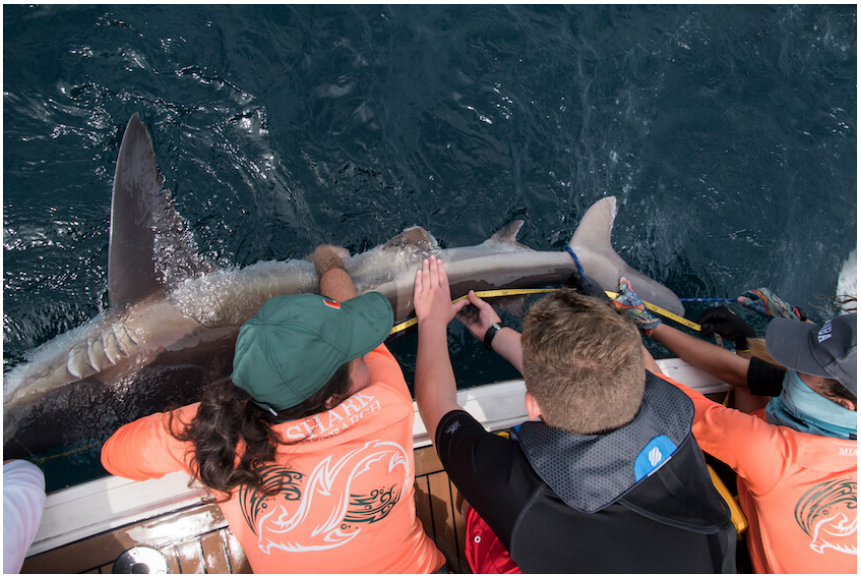
A student views the 360 film Generation Ocean: Coral Reefs, which immerses viewers in real-world coral reef science. Photo by Angela Rosenberg, ANGARI Foundation.

Led by co-founder Kari Rosenberg, the nonprofit has produced an educational 360 film series, *Generation Ocean*, with the intention of immersing viewers in the world of marine science research aboard R/V *ANGARI*.

The first film of the series, *Generation Ocean: Coral Reefs*, allows viewers to join a research team for an expedition to the Florida Keys National Marine Sanctuary where they explore a variety of scientific methods to study coral reefs. The film features scientists and research from the National Oceanic & Atmospheric Administration, Atlantic Oceanographic & Meteorological Laboratory, Cooperative Institute for Marine and Atmospheric Sciences and University of Miami Rosenstiel School of Marine and Atmospheric Science. Classroom activities to complement this film and reinforce concepts are available free of charge on the foundation's website.

Educating and Inspiring the Next Generation

With the goal of increasing education and inspiring career paths in science, the foundation has created several educational initiatives consisting of interactive experiences both at-sea and ashore that target a variety of audiences, including K-12 students, teachers and citizen scientists. These programs heighten knowledge of and engagement in marine and environmental sciences, foster dialogue between scientists and the public and enhance STEM education.



Shark researchers show a student the proper technique for measuring the total length of a shark. This work was performed under research permits held by University of Miami. Photo by Josh Liberman.

Most recently and in response to the increased need for distance learning, the foundation joined forces with the University of Florida Thompson Earth Systems Institute's Scientist in Every Florida School program to bring a series of free live webinar events with marine scientists to students, teachers and the public. Branded Ocean Expert Exchange (OEE), the series is accessible to audiences of all ages with each event featuring scientists who have participated in expeditions onboard R/V *ANGARI*. For teachers that want to integrate the OEE webinars into their remote instruction, ANGARI Foundation and its collaborators have curated and made available complementary educational resources for each featured scientist's area of expertise.

Youth Science-At-Sea

For students and teachers who are local to South Florida, ANGARI Foundation hosts educational expeditions, working with marine scientists to give participants an opportunity to learn from experts in a hands-on setting. A professor and shark expert from Florida Atlantic University who values teaming up with ANGARI Foundation said, "They have a very strong student outreach component and [offer] an opportunity for scientists to get their message across and also get students excited about their research."

ANGARI Foundation is dedicated to o ering hands-on opportunities to those who would not otherwise be able to participate in ocean science and partners with like-minded programs. The foundation works with Palm Beach County's Tri-City Trailblazer initiative and provides vessel support for the University

of South Florida's Oceanography Camp for Girls (OCG) program.

The Future Looks Bright

ANGARI Foundation delivers an outstanding research platform for scientists at an affordable cost, while using media and educational programming to raise public awareness of important scientific research and inspire the next generation. The foundation regularly partners with

community organizations, educational institutions and businesses to grow public interest in support of ocean science.

If you are a scientist or filmmaker who wants to charter R/V *ANGARI* or are interested in working with ANGARI Foundation to help bring ocean science into your community or classroom, please visit angari.org or email the ANGARI team at info@angari.org.

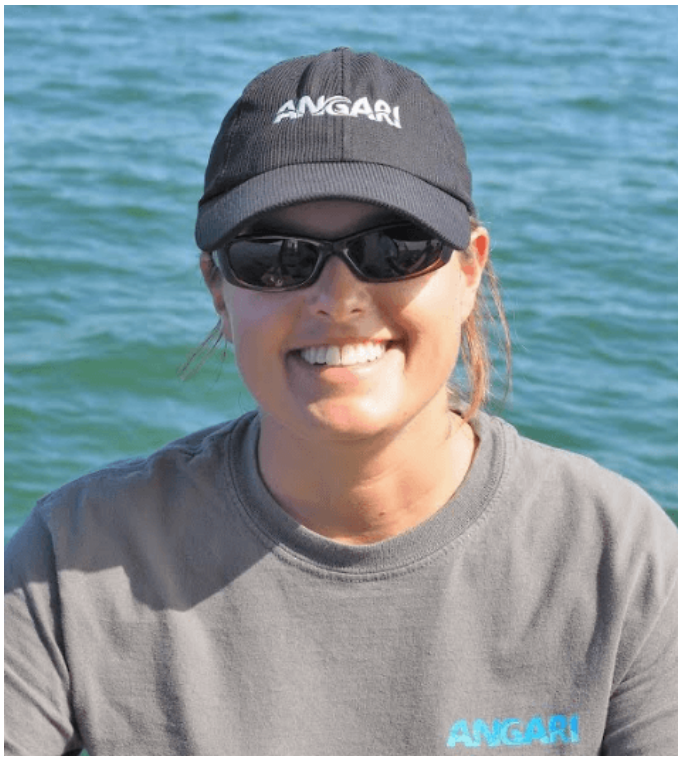
You can also check out ANGARI Foundation on Facebook, Instagram, Twitter and YouTube!

About The Author

Rachel Plunkett

Rachel is an ocean science communicator, marine biologist and underwater photographer. She holds a B.S. degree in environmental policy from Rutgers University and an M.S. degree in marine biology from Florida Atlantic University. Rachel is in charge of communications at ANGARI Foundation where she delivers promotional strategies and campaigns to raise public awareness of the ocean science research happening aboard R/V *ANGARI*.
She also runs her own business, RP Communications, where she develops visual and written communications for clients to convey information about research, conservation and sustainability topics to both scientific and lay audiences. If she is not in the office, you can most likely **fi**nd her SCUBA diving, freediving or boating around in South Florida taking photos.

You can check out more photos on her Instagram account @plunkyfish and on her website.



Angela Rosenberg

Angela Rosenberg combined her love for the ocean, marine science and boating to create ANGARI Foundation. She is the Foundation President and Captain of their 65-ft research vessel *ANGARI* that was repurposed for research under her guidance. Angela has extensive knowledge and experience in boating and holds a U.S.C.G. Merchant Mariner 100-ton license and STCW and Marine Security credentials as well as several SCUBA certifications. Prior to ANGARI Foundation, Angela developed and implemented international scientific expedition, education and outreach programs for a Miami-based nonprofit, and previously worked as a marine scientist conducting field and laboratory research related to shallow and deep-water corals, aquaculture, geochemistry, paleoceanography, climate change, ocean acidification, trace metals and seafloor mapping. Angela earned a M.B.A. from the University of South Carolina and a M.S. in marine geology and geophysics and a B.S. in marine science and biology from the University of Miami.

This piece was prepared online by Panuruji Kenta, Publisher, SEVENSEAS Media

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