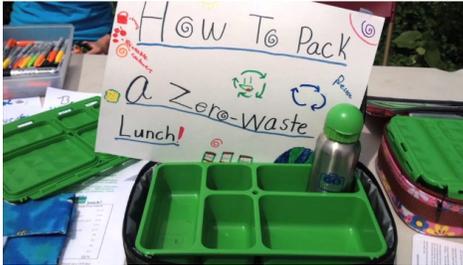


Social Science Community Newsletter

Volume 12, March/April 2017 ~ Sharing knowledge for better practices

Parents' Values and Opinions of Ocean Guardian, an Ocean Conservation and Stewardship Educational Program

By Danielle Schwarzmann, Economist, Office of National Marine Sanctuaries



Credit: NOAA Sanctuaries

A recently completed study, slated for release in April, evaluated an educational program coordinated by NOAA's [Office of National Marine Sanctuaries](#) that promotes hands-on ocean conservation and stewardship.

The [Ocean Guardian School Program](#) provides grants to participating K-12 schools that

commit to the protection and conservation of their local watersheds, the world's ocean, and special Great Lakes and ocean places, like National Marine Sanctuaries. Schools may choose from five programs: improving schoolyard **habitats** and gardens (with an emphasis on native species and low water use), watershed/wetland **restoration**; reducing **marine debris** (such as single use plastics), **recycling**/minimizing waste by implementing zero waste lunch or composting programs, and **energy use** and ocean health (including carbon footprint reduction or installing clean energies).

[Ocean Guardian evaluation, continues on page 3](#)

The Socioeconomic Benefits of the U.S. Integrated Ocean Observing System (IOOS®)

By Kate Culpepper, Communications Specialist, U.S. IOOS

Agencies routinely produce ocean observations as part of their missions and mandates, but without data standards and architecture for integration, the benefits of those observations are minimized. In addition, there are thousands more observations collected throughout U.S. waters daily by state and local governments, academic institutions, and private industry which can increase data capabilities for everyone if integrated. That's where the U.S. Integrated Ocean Observing System (IOOS®) comes in—IOOS establishes data standards, builds network infrastructure, and leverages federal and non-federal assets to create a national ocean observing system that maximizes the benefits of the kind of big data that comes from coordinating input from many observing networks.

[U.S. IOOS®, continues on page 4](#)

Did You Know?

The National Marine Sanctuary System network includes 13 sanctuaries and the Papahānaumokuākea and Rose Atoll Marine National Monuments. The network protects 430 known shipwrecks and sunken aircraft.

Source: <http://sanctuaries.noaa.gov/>

Upcoming Events



May 1, 2017: Waterpower Week in Washington, D.C.
www.nationalhydroconference.com

May 11, 2017: The New He'eia National Estuarine Research Reserve Webinar. [Register Here](#)

May 31-June 2, 2017: Blue Planet Symposium, College Park, M.D.
symposium.geoblueplanet.com

June 8, 2017: World Oceans Day
www.worldoceansday.org/

June 5-9, 2017: The Ocean Conference, New York, N.Y.
oceanconference.un.org/

June 13-15, 2017: Capitol Hill Ocean Week (CHOW), Washington, D.C.
www.marinesanctuary.org/chow/

June 19-22, 2017: Oceans '17 MTS/ IEEE Aberdeen, Scotland
www.oceans17mtsieeeaberndeen.org

NWS Debuts Social Science Training at the National Weather Service Training Center

By Dr. Vankita Brown, Social Scientist, National Weather Service

Twenty-two participants from all National Weather Service (NWS) regions convened February 13 - 16, 2017 in Kansas City, Missouri at National Weather Service Training Center for NWS' first ever Social Science Applications Training. Over the course of the three days, participants were introduced to the science of Social Science, its approaches, goals, methods, and challenges. Likewise, participants also spent time conceptualizing their very own project that included social science dimensions.

The in residence training was the first part of the five month blended curriculum pilot that focuses on exposing weather professionals to collaborative social science applications and research with the weather enterprise. Over the next several



Credit: National Weather Service

Did You Know?

There are over 4,000 National Weather Service staff distributed among 122 weather forecast offices, 13 river forecast centers, 9 national centers, and other support offices across the country.

Source: <http://www.weather.gov/about>

months, students will complete the online modules and work in teams to develop a project proposal. The last three days of the course will see participants return to the Training Center to report out on their respective proposals and evaluate the course overall.

The training was facilitated by me, Dr. Vankita Brown, and Dr. Laura Myers, Director of the Center for Advanced Public Safety (CAPS), and is a part of NWS' efforts to integrate social science into the agency and its work. It is also part of NWS' work to build on the Impact Decision Support Services (IDSS) concept and the Weather Ready Nation strategic objective.

Evaluating Living Shorelines to Inform Regulatory Decision Making in South Carolina

Source: NOAA Office for Coastal Management



Oyster reef installation at the ACE Basin National Estuarine Reserve

Credit: South Carolina Department of Natural Resources

Living shorelines show great promise in coastal South Carolina as a tool to control erosion, increase habitat, and protect coastal areas from hazards both short-term (e.g., storms) and long-term (e.g., sea level rise). The South Carolina Department of Natural Resources and the Ashepoo, Combahee, and Edisto (ACE) Basin National Estuarine Research Reserve have constructed oyster-reef-based living shorelines adjacent to public land for 15 years, and private property owners are also showing interest in using living shorelines to prevent erosion. Current South Carolina permitting processes, however, do not address this emerging strategy and is therefore a barrier for private property owners.

A research project is at the underway to help the state develop a comprehensive science-based regulatory process. Researchers will analyze a suite of living shoreline possibilities specifically suited to South Carolina, noting their performance under varying physical and environmental conditions.

Living shorelines, continues on page 3

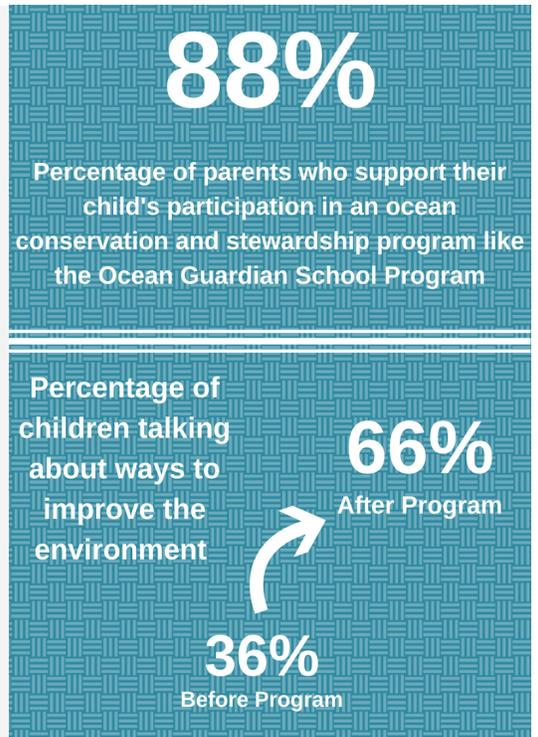
Ocean Guardian evaluation, continued from page 1

This valuation study estimated the monetary value that parents place on their child's participation in Ocean Guardian and sought to identify behavioral changes in students towards environmental stewardship. The study used data collected by surveying parents about the qualitative and quantitative benefits that parents derive from their child's participation in the program.

The results showed that 88.5% of parents supported their child participating in an ocean conservation and stewardship program. The largest behavioral change parents reported was seeing their child talk to others about ways to improve the environment. Prior to taking part in the program, 36% of students were reported as doing this by their parents, while after the program, this percentage rose to 66%.

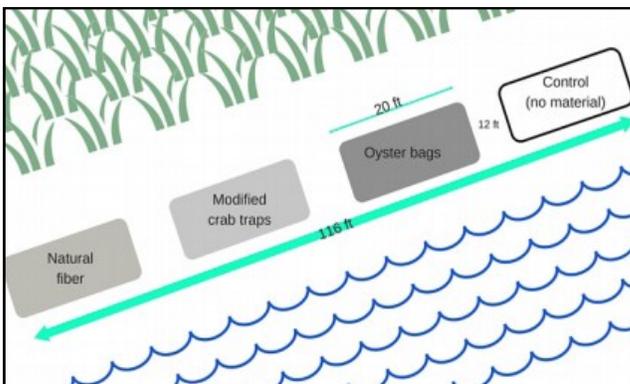
Parents put the highest value on the schoolyard habitat pathway, reporting they would be willing to pay roughly \$59 in extra field trip or school costs for their child to have a hands on habitat experience. The restoration pathway activities were the second highest valued pathway at nearly \$45. The energy use, marine debris, and recycling pathways also had positive values at approximately \$34, \$26 and \$21 respectively. The ultimate takeaway supported by this study is that the benefits associated with ocean conservation and stewardship programs can have positive net benefits that exceed costs.

For more information on this evaluation, or for questions about other human dimensions and socioeconomic work within the Office of National Marine Sanctuaries, please contact Danielle Schwarzmann (danielle.schwarzmann@noaa.gov).



Living shorelines, continued from page 2

Researchers will analyze a suite of living shoreline possibilities specifically suited to South Carolina, noting their performance under varying physical and environmental conditions. Using a stakeholder-driven process, the project team will use information from case-study assessments, experimental research sites, and monitoring to generate the information needed to develop a statewide living shoreline policy. Ultimately, this project will help remove a critical barrier to living shoreline implementation.



Experimental design for the living shoreline possibilities

Source: NOAA Office for Coastal Management

About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. The Science Collaborative is managed by the University of Michigan's Water Center through a cooperative agreement with NOAA. Funding for the research reserves and this program comes from NOAA. Learn more at www.nerrs.noaa.gov or www.graham.umich.edu/water/nerrs.

Social Scientist Spotlight: Dr. Vankita Brown, National Weather Service



Photo Courtesy of Dr. Vankita Brown

What She Does: Vankita is a social scientist with the National Weather Service in Silver Spring, Maryland. She provides social science expertise and consultation to meteorologists and NWS leadership on ways to help improve their service to the nation. This involves soliciting feedback from their partners on their experiences with our products and services. Additionally, she designs and delivers social science training to staff.

Her Background: Vankita holds a Ph.D. in Mass Communication and Media Studies from Howard University. She also holds Master's in Media Communication from Webster University and a Bachelor's in Mass Communication from Southern Illinois University.

An Important Accomplishment: Developing and executing the Social Science Applications Training that NWS just debuted in February 2017. (Learn more about the training on page 2 of this newsletter)

Biggest Misconceptions about Social Science: That social science is easy and a “soft science.” Social science is much more nuanced as humans are complex and don't always behave in predictable ways.

A Fun Fact About Vankita: She is an avid fan of the show “The Walking Dead”

Reach Vankita at vankita.brown@noaa.gov

U.S. IOOS, continued from page 1

Integrated data are used by the military and incorporated into software used by the U.S. Coast Guard's Search and Rescue Operations (SAROPS) to identify search areas. The oceans drive weather patterns therefore, ocean observations improve weather forecasts. With integrated data, researchers can better see changes in ocean chemistry and physics to forecast coming trends, enabling communities and businesses to make decisions that keep people and investments safe. By creating and maintaining an organized system to standardize, archive, and integrate data we establish the capacity for informed, sound decision making for everyone, every day.



Petty Officer 2nd Class Michelle Crocker inputs coordinates into SAROPS to generate a search pattern in Coast Guard Sector Southeastern New England's command center on Aug. 12, 2016.

Credit: U.S. Coast Guard SAROPS



A satellite view of Lake Erie showing a harmful algal bloom near Toledo, OH in July 2015.

Credit: U.S. IOOS®

Earth Day is April 22nd, 2017. Do your part all year round!

PROTECTING OUR PLANET STARTS WITH YOU



**BIKE MORE
DRIVE LESS**



**reduce
REUSE
recycle**

Cut down on what you throw away. Follow the three "R's" to conserve natural resources and landfill space.

choose sustainable



Learn how to make smart seafood choices at www.FishWatch.gov.

Trees provide food and oxygen. They help save energy, clean the air, and help combat climate change.



EDUCATE

When you further your own education, you can help others understand the importance and value of our natural resources.

CONSERVE WATER



The less water you use, the less runoff and wastewater that eventually end up in the ocean.



Buy less plastic and bring a reusable shopping bag.



Don't send chemicals into our waterways.

Choose nontoxic chemicals in the home and office.



Volunteer!

Volunteer for cleanups in your community. You can get involved in protecting your watershed too!



**Long-lasting light bulbs
- ARE A -
BRIGHT IDEA**

Energy efficient light bulbs reduce greenhouse gas emissions. Also flip the light switch off when you leave the room!



oceanservice.noaa.gov

Recent Social Science Publications

- * Himes-Cornell, Amber H. & Santos, Anna N. (2017). *Involving fishing communities in data collection: A summary and description of the Alaska community survey, 2013*. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-AFSC-340, 195p.
- * Clay, P.M., Colburn, L.L. & T. Seara, T. (2016). Social bonds and recovery: An analysis of Hurricane Sandy in the first year after landfall. *Marine Policy* 74: 334-340.
- * Seara, T., Clay, P.M. & Colburn, L.L. (2016). Perceived adaptive capacity and natural disasters: A fisheries case study. *Global Environmental Change* 38: 49-57.
- * Trainor, J. E., Nagele, D., Philips, B. & Scott, B. (2015). Tornadoes, Social Science, and the False Alarm Effect. *Weather Climate and Society*, 7(4), 333-352.

Have a publication to share?

Help us populate the list of social science publications by sending the citation to prss.socsci@noaa.gov

*We would like your input. Please send us ideas for stories, articles, or social science work that we should highlight.
You can contact us at: prss.socsci@noaa.gov*