Appendix of Organizations Engaged in Education and Outreach of US Caribbean Fisheries Efforts

Summary

A primary goal of the Southeast Fisheries Science Center's (SEFSC) Caribbean Strategic Planning project is to improve communication of knowledge to better engage stakeholders in fisheries management processes. The first step in accomplishing that goal is to discover and inventory all known communication mechanisms between the commercial and recreational fishing communities and managers, within agencies, and between external stakeholders and managers engaged in fisheries management in the US Caribbean. A working group was established to define all organizations in outreach and education on fisheries in the US Caribbean, identify the different sources and mechanisms of communication available, and develop an infographic explaining outreach and education methods used by the organizations. This document contains information on all organizations engaged in education and outreach on fisheries in the US Caribbean.



Table of Contents

Working Group	2
Academic	3
Marine Resource Education Program (MREP)	3
National Marine Educators Association (NMEA)	3
Sea Grant Puerto Rico	3
Virgin Islands Marine Advisory Service (VIMAS)	4
UPR Asociación de Estudiantes de Ciencias Marinas (AECiMa)	4
Consultant	5
HJR Reefscaping	5
Isla Mar Research Expeditions	5
Council/Agency	6
Caribbean Fishery Management Council (CFMC)	6
Meros Puerto Rico	7
Outreach and Education Advisory Panel (OEAP)	7
Programa de Educación para Pescadores Comerciales (PEPCO)	7
Puerto Rico District Advisory Panel (PR DAP)	8
St. Thomas/St. John District Advisory Panel (STTJ DAP)	8
St. Croix District Advisory Panel (STX DAP)	8
Federal	9
Marine Recreational Information Program (MRIP)	9
NOAA in the Caribbean	9
NMFS Atlantic Highly Migratory Species	9
NMFS SERO Protected Resources	10
NMFS SERO Recreational Fishing	10
NMFS SERO Sustainable Fisheries	
Sea Notes, SEFSC Newsletter	
Southeast Data Assessment and Review (SEDAR)	11
International Agency	
Western Central Atlantic Fishery Commission (WECAFC)	12
Non-Governmental Organization (NGO)	
American Fisheries Society - Puerto Rico chapter (AFS)	
Caribbean Oceanic Restoration and Education Foundation (CORE)	
The Caribbean Coastal Ocean Observing System (CARICOOS)	13
Conservación ConCiencia	13
DRNA CoralPR	14
Dolphinfish Research Program (DRP)	14
Golden Hook Fishing Club (GHFC)	
Gulf and Caribbean Fisheries Institute (GCFI)	
Northside Sportfishing Club	
Sociedad Ambiente Marino (SAM)	16

St. Croix Environmental Association (SEA)	16
St. Thomas Fisherman's Association (STFA)	17
The Nature Conservancy (TNC)	17
Virgin Islands Game Fishing Club (VIGFC)	18
Virgin Islands Good Food Coalition	18
Virgin Islands Network of Environmental Educators (VINE)	19
Ratio Stations	19
USVI	19
931. FM WTJX	19
FM 107.9 WLDV - DaVybe	20
95.1 FM Isle 95	20
STT/STJ	20
AM 1340 WSTA	20
AM 1000/Radio One	20
FM 105.3 JAMZ	21
STX	21
91.9 FM – Radio Pailove	21
AM 970 – WSTX	21
Territorial Agency	21
Coastal Zone Management, Division of Territorial Parks (CZM)	21
Department of Planning and Natural Resources, Division of Fish and Wildlife (DPNR, DFW)	
Department of Natural and Environmental Resources (DNER)	22
Fisheries Liaison - PR	22
Fisheries Liaison - STT/STJ	23
Fisheries Liaison - STX	23
Local Food and Farm Council	24
Marine Recreational Fishing Statistics Program	24

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Please contact a working group member with changes or suggestions.

Academic

Marine Resource Education Program (MREP)

About: The Marine Resource Education Program (MREP) is a neutral platform outside the regulatory process for fishermen to 1) learn the nuts and bolts of marine fisheries science and management, 2) demystify acronyms and vocabulary, 3) gain tools and insights into effective engagement in your regional Fishery Management Council, and 4) connect with key regional fishery science and management experts.

POC: Courtney Pickett (cpickett@gmri.org)

Communication strategies: outreach material, webpage, workshops

Other: previous Southeast Workshop Materials can be found here

National Marine Educators Association (NMEA)

About: The National Marine Educators Association (NMEA) is a dedicated, influential member-based organization of classroom teachers, informal educators, university professors, scientists, and more from around the world working together to advance the understanding and protection of our freshwater and marine ecosystems. From scientists working in the deep sea to students studying underwater archeology in the Great Lakes, NMEA members are dedicated to making known the world of water, both fresh and salt. The NMEA directs multiple national and international initiatives to further our mission of making known the world of water. These initiatives are led by dedicated committees of active members in NMEA and include the Conservation Committee, Expanding Audience Committee, International Committee, Ocean Literacy Committee, Student Engagement Committee, and Traditional Knowledge Committee.

POC: Cassie Stymiest (cbd232@gmail.com) outreach, Laura Chaibongsai (chai.laura@gmail.com) social media

Communication strategies: education and outreach materials, social media, news and events, scholarships, website, journal, conference

Other: more information on the initiatives can be found <u>here</u> and the Ocean Literacy Guide can be found <u>here</u>

Sea Grant Puerto Rico

About: The University of Puerto Rico Sea Grant College Program is an educational program dedicated to the conservation and sustainable use of coastal and marine resources in Puerto Rico, the US Virgin Islands, and the Caribbean region. Our mission is twofold: (1) to fund scientific research in the thematic areas of conservation and the use of coastal and marine resources; (2) to offer marine extension services by making use of our experience and by

applying the scientific knowledge that is generated through our research to the problems and issues that our community of users face everyday. Since the beginning of the 1980's, Sea Grant has operated through the University of Puerto Rico, Mayagüez and Humacao Campuses. Sea Grant's work is based on collaborations with universities, industries, governmental agencies, and resource users. Our projects are carried out through research, education, and public service. The Sea Grant College Program has three components: Research, Education, and Marine Advisory; all of which are supported by our Communications section.

POC: Lillian Ramírez Durand (lillian.ramirez@upr.edu)

Communication strategies: outreach materials, social media

Other: Outreach program overview and education program overview

Virgin Islands Marine Advisory Service (VIMAS)

About: As an extension to the University of Puerto Rico's Sea Grant College Program, the <u>Virgin Islands Marine Advisory Service</u> (VIMAS) works to promote the education and awareness of our natural resources in the Caribbean. Operating within the University of the Virgin Islands's (UVI) Center for Marine and Environmental Studies (CMES), our team is able to leverage partnerships and collaborations with researchers at UVI and the local Virgin Islands government to accomplish our goals. From annual beach cleanups, marine science summer programs for youth, or the recycling of glass beverage bottles, we use innovative outreach and research tools to tackle locally relevant issues within our Virgin Islands workforce and economy.

POC: Howard Forbes Jr. (howard.forbes@uvi.edu)

Communication strategies: events, outreach materials

Other: Center for Marine and Environmental Studies (CMES)

UPR Asociación de Estudiantes de Ciencias Marinas (AECiMa)

About: The Marine Sciences Students Association of the University of Puerto Rico / Asociación de Estudiantes de Ciencias Marinas (AECiMa) facilitates collaboration amongst the students, researchers, and professors within our department. In doing so, we will engage in thoughtful activities which raise awareness of our departments on-goings both internally and externally to other universities, schools and environmental agencies. We also aim to enhance the professional development of students herein. We hope that as an end result of our endeavors, science can be more easily communicated between graduate students as well as the surrounding communities. Ultimately leading to a better understanding and management of Puerto Rico's natural resources. These goals will be achieved through outreach activities that highlight research and ideas from resident students and from the general public.

POC: Miguel Figuerola (aecimaupr@gmail.com)

Communication strategies: events, listserv

Other: recent education and outreach activities can be found here

Consultant

HJR Reefscaping

About: HJR Reefscaping is an environmental consulting group composed of highly trained and experienced professionals. Our team of scientists has a multidisciplinary skill set ranging from Marine Biology, Ecology, Geology, the Taxonomy of Fauna and Flora, which serve for Construction, Restoration, Permitting, Protected Species Management and Geographical Information Systems. We are a diverse and growing team, working to help restore, protect and manage natural resources. Our team offers solutions that meet the complex criteria associated with development of coastal and marine environments. With our extensive practical and technical experience in the field we guarantee scientifically rigorous results throughout our work. Our projects are primarily focused on biological assessment, educational outreach, habitat restoration, and monitoring of marine environments.

POC: Michelle Shärer-Umpierre (cieluprm@gmail.com)

Communication strategies: production and publication of educational materials such as classes, demonstrations, images, presentations, reading material, talks, videos, workshops

Other: services including marine education and outreach can be found here

Isla Mar Research Expeditions

About: We are marine scientists with research interests in marine protected area effectiveness, fish community composition, fish spawning aggregations and fisheries management. Isla Mar Research Expeditions was founded in 2015 while we were both still in graduate school at the University of Puerto Rico, Mayaguez and we have called Puerto Rico our home since 2011. We have a combined 30+ years of diving experience and 10 years in developing and leading field courses. Our mission is to provide exceptional service in marine science education, field-based research training and experience and public outreach in ocean conservation. We believe that science should be transparent and translated in a way that a general audience can learn and appreciate what we are working to accomplish in marine conservation and management. We tailor our scientific education services to undergraduates, early career scientists and citizen scientists. We provide the training to conduct independent projects and collect quality data. Our goal is to present a field-based research orientation that will equip our students with the skills they need to be competitive in the field of marine science. In the case of citizen scientists, our goal is to provide a well-balanced experience of fun and education, sending you home with a wealth of knowledge about the ocean and an incredible experience in the water that you will not find elsewhere! Our field experience is valuable to ocean-related projects in Puerto Rico and the Caribbean. Our services range from technical diving, fish and benthic census, coral reef

restoration, scientific dive training and dive certification training, fisheries assessment, bioacoustics, equipment deployment, eDNA sampling, molecular analyses of diet and environmental samples, among many others. When you work with us, you are supporting a small, family business and local scientists, including all of those we contract! We look forward to welcoming you to the Isla Mar family!

POC: Leslie Wade (islamarexp@gmail.com)

Communication strategies: outreach and education programs, social media

Other: services including marine education and outreach can be found here

Council/Agency

Caribbean Fishery Management Council (CFMC)

About: The Caribbean Fishery Management Council (CFMC) is one of eight regional fishery management councils, established under PL 94-265 (approved on April 13, 1976), now known as the Magnuson-Stevens Act (the Act) as amended in 1996 and 2007 also called Sustainable Fisheries Act, for the conservation and orderly utilization of the fishery resources of the United States of America. The CFMC includes the Commonwealth of Puerto Rico (PR) and the United States Virgin Islands (USVI). It has ten members, seven with vote and three with voice but no vote. Four of the voting members are appointed by the US Secretary of Commerce upon recommendations of the Governors of PR and the USVI. The other voting members are directly designated by the Act: the principal officials from PR and USVI with marine fishery management responsibility, and the Regional Administrator for the National Marine Fisheries Service (NMFS), Southeast Regional Office (SERO). The three non-voting members are: the Director of the Southeast (Atlanta) Region of the Fish and Wildlife Service (USFWS), the Commander of the Seventh (Miami) District of the US Coast Guard (USCG), and a representative from the US Department of State (USDS). The CFMC has its headquarters in San Juan, Puerto Rico. It is unique in being the only council that does not include one of the fifty states of the Union and in sharing fish stocks with many Caribbean nations. The Caribbean Fishery Management Council is responsible for the creation of management plans for fishery resources (FMPs) in the US Caribbean Exclusive Economic Zone (EEZ) off PR and the USVI. FMPs are submitted to the US Secretary of Commerce for approval and implementation in the Exclusive Economic Zone (EEZ). Once implemented, local Governments may adopt compatible legislation for the conservation of the fishery resources within local waters.

POC: Crisitna Olán (cristinaolancfmc@gmail.com)

Communication strategies: social media, webpage

Other: additional outreach and education links can be found here

Meros Puerto Rico

About: The Meros Puerto Rico project, funded by the CFMC, is designed to explore the habitat preference of the juvenile stages of the threatened Nassau grouper (Epinephelus striatus). As juveniles, many grouper species like the Nassau grouper take advantage of the ample protection offered by the three-dimensional structure of mangrove roots as well as the coral crevices and caves that are scattered among seagrass beds. Those seagrass beds also provide an abundant food source for these juvenile fish that are eating mostly crustaceans like shrimp and crabs before they transition to eating larger fish. Even though Nassau grouper are protected by local and federal laws, and possessing the fish is prohibited all year, it is also important to consider their associated habitat when discussing conservation actions. The habitats occupied by juveniles and adults can be protected in order to encompass the entire life history of the Nassau grouper. So, their habitat - referred to as Essential Fish Habitat - can be protected from destructive practices like coastal development or harmful fishing practices. In theory, this should protect the Nassau grouper from the time it is born to the time it dies from natural causes. In the U.S. Exclusive Economic Zone (EEZ, beyond 9 Nm from the coast in Puerto Rico and beyond 3 Nm in the USVI and Florida), the Nassau grouper is protected from any take, capture or possession. If you accidentally catch a Nassau grouper, you must take all necessary measures to release it in the habitat it was found, unharmed and alive. We encourage you to report any such interaction to accumulate information on every observation and help researchers document the species recovery.

POC: Isla Mar/HJR Reefscaping (Isla Mar contact us, HJR contact us)

Communication strategies: citizen science, public outreach

Other: information on Isla Mar and HJR Reefscaping can be found here and here, respectively

Outreach and Education Advisory Panel (OEAP)

About: The main goal of the <u>Outreach and Education Advisory Panel</u> (OEAP) is to produce an Outreach and Education Strategic Plan for the CFMC with the main objective of achieving a better engagement with the general public in the issues of fisheries management within the Council's jurisdictions. The OEAP has also advised the Council on the revision of its web page and the production of a newsletter.

POC: Alida Ortiz (alida1ortiz.cfmc@gmail.com)

Communication strategies: direct communication, email, outreach materials, social media

Other: additional outreach and education links can be found here

Programa de Educación para Pescadores Comerciales (PEPCO)

About: The Programa de Educación para Pescadores Comerciales (PEPCO, Educational Program for Commercial Fishers) educates and guides commercial fishermen on the issues of

fishing licenses, fishing statistics, fishery management and protected species at the federal and state levels.

POC: Wilson Santiago (wilsonsantiagocfmc@gmail.com)

Communication strategies: outreach workshops

Puerto Rico District Advisory Panel (PR DAP)

About: The <u>District Advisory Panels</u> (DAP) are composed of members of the commercial and recreational fisheries sectors. The CFMC has three DAPs representing each of the US Caribbean Districts.

POC: Nelson Crespo (rcfunion@yahoo.com)

Communication strategies: direct communication

Other: additional outreach and education links can be found here; Anthony Elizo social media 'Ritmicano' can be found here

St. Thomas/St. John District Advisory Panel (STTJ DAP)

About: The <u>District Advisory Panels</u> (DAP) are composed of members of the commercial and recreational fisheries sectors. The CFMC has three DAPs representing each of the US Caribbean Districts.

POC: Julian Magras (hardnose1123@gmail.com)

Communication strategies: direct communication

Other: additional outreach and education links can be found here

St. Croix District Advisory Panel (STX DAP)

About: The <u>District Advisory Panels</u> (DAP) are composed of members of the commercial and recreational fisheries sectors. The CFMC has three DAPs representing each of the US Caribbean Districts.

POC: Gerson Martinez (mgerson2123@gmail.com)

Communication strategies: direct communication

Other: additional outreach and education links can be found here

Federal

Marine Recreational Information Program (MRIP)

About: NOAA Fisheries' Marine Recreational Information Program (MRIP) is the state-regional-federal partnership that develops, implements, and continually improves a national network of recreational fishing surveys to estimate total recreational catch. These estimates are combined with commercial catch data and biological research to help scientists and managers assess and maintain sustainable fish stocks.

POC: Sarah Lazo (sarah.lazo@noaa.gov)

Communication strategies: education and outreach materials

Other: a catalog of outreach and education materials from MRIP can be found here

NOAA in the Caribbean

About: NOAA's Southeast and Caribbean Regional Collaboration Team (SECART) initiated NOAA in the Caribbean in 2011 as a forum to improve communication and coordination among NOAA and its partners working in the Caribbean. NOAA in the Caribbean fosters more effective engagement with stakeholders and more efficient delivery of services, as well as improves collaboration in the region. NOAA in the Caribbean includes NOAA employees and partners currently active in research, management, training, or other efforts in the Caribbean. NOAA in the Caribbean recognizes the same geographic scope described in the NOAA Caribbean Strategy — the Caribbean Large Marine Ecosystem. While the primary focus is on Puerto Rico and the U.S. Virgin Islands, NOAA in the Caribbean seeks to maintain resource exchanges with Florida and, as appropriate and practicable, with partners in the wider Caribbean.

POC: Katharine Egan (katharine.egan@noaa.gov)

Communication strategies: newsletters, webpage

Other: newsletters can be found here

NMFS Atlantic Highly Migratory Species

About: Highly migratory species (HMS) travel long distances and often cross domestic and international boundaries. NOAA Fisheries manages HMS fisheries—tunas, sharks, swordfish, and billfish—in the U.S. Atlantic Ocean, Gulf of Mexico, and Caribbean waters. We: 1) Develop and implement fishery management plans in cooperation with the HMS advisory panel. 2) Monitor commercial and recreational catches to ensure compliance with domestic and international quotas and/or catch limits. 3) Issue permits for commercial and recreational HMS fishing and scientific research. 4) Implement domestic requirements of the International Convention for the Conservation of Atlantic Tuna (ICCAT) and support international negotiations for ICCAT, the

Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the Food and Agriculture Organization of the United Nations.

POC: Randy Blankenship (randy.blankinship@noaa.gov)

Communication strategies: website, fishery bulletins, workshops, listservs, outreach materials

Other: additional resources including outreach and education materials can be found here

NMFS SERO Protected Resources

About: Protected Resources are responsible for the conservation, protection, and recovery of more than 150 endangered and threatened marine species under the Endangered Species Act, the conservation, management, and protection of whales, dolphins, porpoises, seals, and sea lions under the Marine Mammal Protection Act, and the coordination of professional networks, authorized individuals and organizations to respond to your reports of sick, injured, entangled, or dead marine animals. Since 1977, NOAA Fisheries and U.S. Fish and Wildlife Service (U.S. FWS) have shared jurisdiction for recovery and conservation of sea turtles listed under the ESA. We lead the conservation and recovery of sea turtles in the marine environment U.S. FWS has the lead for the conservation and recovery of sea turtles on nesting beaches.

POC: Orian Tzadik (orian.tzadik@noaa.gov)

Communication strategies: website, outreach materials, educational resources, outreach and education events calendar

Other: additional resources including outreach and education materials can he found here

NMFS SERO Recreational Fishing

About: NOAA Fisheries' Marine Recreational Information Program is the state-regional-federal partnership that develops, improves, and implements a national network of recreational fishing surveys to estimate total recreational catch. Our recreational fisheries statistics help scientists and managers assess and maintain sustainable fish stocks. NOAA Fisheries maintains a central role in developing data collection and estimation methods, administering recreational fishing surveys, and producing recreational fisheries statistics. Regional and state partners identify data collection priorities, coordinate survey operations, and participate in quality assurance and quality control procedures. There are several ways to access our recreational fishing data. You can use the query tool to filter recreational fisheries statistics by time series, geographic area, species, mode, and other characteristics. You can also download our public-use datasets and template programs to perform your own custom analyses.

POC: Sean Meehan (sean.meehan@noaa.gov)

Communication strategies: website, outreach materials, educational resources, outreach and education events calendar

Other: additional information on outreach and education from the Marine Recreational Information Program can be found <u>here</u>

NMFS SERO Sustainable Fisheries

About: Sustainable Fisheries work to maintain healthy fish stocks important to commercial, recreational, and subsistence fisheries with the goal to increase long-term economic and social benefits to our region. We work with three regional fishery management councils (Caribbean, Gulf, and South Atlantic) to conserve and manage marine fishery resources in federal waters from North Carolina through Texas, including Puerto Rico and the U.S. Virgin Islands. With our partners, we manage more than 160 species and 17 fishery management plans. We also manage the largest recreational fisheries in the country. There are more than 5.7 million recreational anglers in the Southeast. And, about 26 percent of the Southeast harvest is caught by recreational anglers

POC: Sarah Stephenson (sarah.stephenson@noaa.gov)

Communication strategies: webpage, govdelivery email distribution, CFMC distribution

Other: Caribbean Branch fishery bulletins can be found here

Sea Notes, SEFSC Newsletter

About: <u>Sea Notes</u> is a newsletter of the NOAA's Southeast Fisheries Science Center. It highlights the Center's science which provides the scientific advice and data needed to effectively manage the living marine resources of the Southeast region and Atlantic high seas.

POC: Meaghan Emory (meaghan.emory@noaa.gov)

Communication strategies: webpage, newsletter, govdelivery email distribution, social media

Other: archived newsletters can be found here

Southeast Data Assessment and Review (SEDAR)

About: SouthEast Data, Assessment, and Review (SEDAR) is the cooperative process by which stock assessment projects are conducted in NOAA Fisheries' Southeast Region. SEDAR was initiated to improve planning and coordination of stock assessment activities and to improve the quality and reliability of assessments. SEDAR strives to provide an open and transparent approach for development and review of the scientific information on fish stocks that is critical to management decision making.

POC: Julie Neer (julie.neer@safmc.net)

Communication strategies: webpage, emails

Other: educational resources can be found here

International Agency

Western Central Atlantic Fishery Commission (WECAFC)

About: The general objective of the <u>Western Central Atlantic Fishery Commission</u> (WECAFC) is to promote the effective conservation, management and development of the living marine resources of the area of competence of the Commission, in accordance with the FAO Code of Conduct for Responsible Fisheries, and address common problems of fisheries management and development faced by members of the Commission.

POC: Laura Cimo (laura.cimo@noaa.gov)

Communication strategies: educational materials

Other: work plan including education and outreach efforts can be found here

Non-Governmental Organization (NGO)

American Fisheries Society - Puerto Rico chapter (AFS)

About: The Southern Division of the <u>American Fisheries Society Puerto Rico chapter</u> (AFS) works to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

POC: Brent Murry (brent.murry@mail.wvu.edu)

Communication strategies: listserv

Other: announcements and upcoming events can be found here

Caribbean Oceanic Restoration and Education Foundation (CORE)

About: The <u>Caribbean Oceanic Restoration and Education Foundation</u> (CORE) inspires communities to be better stewards of the environment through marine awareness education and hands-on coastal programs. We achieve our mission and vision through the pursuit of special projects and activities designed to meet the following goals: Ensure the longevity of our marine ecosystems by implementing the Caribbean Lionfish Response Program through long term partnerships with all territories and countries; Implement an extensive outreach education and

public awareness program that will heighten the understanding of marine ecosystems with under-developed countries as well as developed; Improve the practice of marine stewardship by fostering the development, delivery and application of new cutting-edge research programs, specifically designed to preserve underwater environments for future generations; Partner with The Caribbean Alliance to form a cohesive marine management and research network for the Caribbean; Engage the next generation of marine stewards through education, experiential and professional development opportunities.

POC: Matthew Sims (info@corevi.org)

Communication strategies: direct communication, outreach materials, social media, events

Other: additional marine awareness resources can be found here

The Caribbean Coastal Ocean Observing System (CARICOOS)

About: The Caribbean Coastal Ocean Observing System (CARICOOS), funded by the NOAA IOOS office, is one of eleven coastal observing systems and regional associations which along with federal agencies constitute the national coastal component of the US Integrated Ocean Observing System. This web page brings together coastal ocean data and forecasts from a variety of sources including satellites, ocean instruments and numerical models to give the user an integrated view of past, present and forecasted ocean conditions in the US Caribbean region. Data are provided online by a number of organizations including NOAA, NASA, ONR Universities and others.

POC: Adolfo González (adolfo.gonzalez1@upr.edu)

Communication strategies: educational activities, education and outreach materials, website

Other: information on the CARICOOS School for education and outreach can be found here

Conservación ConCiencia

About: Conservación ConCiencia focus areas are conservation in biodiversity and ecosystems and in protected area systems and management effectiveness, sustainability in fisheries and livelihoods, and climate resilience.

POC: Raimundo Espinoza (raimundo.espinoza@gmail.com)

Communication strategies: outreach and education programs, social media

Other: document library can be found here

DRNA CoralPR

About: The <u>Coral Reef Conservation and Management Program</u> (CoralPR) was established for the management, conservation and protection of coral reefs for the enjoyment and benefit of the people of Puerto Rico. Through this Program, monitoring and research activities on corals are coordinated, management strategies are developed and implemented, and alliances are promoted to reduce threats and promote the conservation of these ecosystems.

POC: DRNA (programadearrecifesdecoral@gmail.com)

Communication strategies: listserv

Other: linktree with announcements, research, and upcoming events can be found here

Dolphinfish Research Program (DRP)

About: One of the primary programs that the Beyond Our Shores Foundation supports in the Dolphinfish Research Program (DRP). The Dolphinfish Research Program began in 2002 from a state and federally funded effort through the South Carolina Department of Natural Resources (SCDNR). When state and federal funding ended for the program in 2006, Don Hammond, lead on the SCDNR project, formed the Cooperative Science Services, LLC, when recreational anglers expressed interest to keep the program running. From that moment forward, Don dedicated his professional career to integrating the public into the Dolphinfish Research Program, an effort which engaged more than 1,591 privately owned vessels and 3,080 fishermen in dolphinfish research. Their collective efforts resulted in more than 21,458 dolphinfish tagged and 551 tagged dolphinfish reported recovered (as of 12.31.2016). Don's vision and committed efforts to engage the public in fisheries research garnered the support of several hundred fishermen, clubs, foundations, organizations, and businesses which provided the funding to allow the program to operate and flourish. In December of 2017, Don retired as Director of the Dolphinfish Research Program. With Don retired, The Beyond Our Shores Foundation now serves as the primary vehicle to support the Dolphinfish Research Program and continues to engage the public in other fisheries and marine science research. Through hard work and dedication, the Beyond Our Shores Foundation aspires to create a dedicated network of fishermen united by one species, the dolphinfish, to ultimately pursue its broader goal of sustainable fisheries, healthier oceans, and more prosperous coastal economies.

POC: Wessley Merten (wess@beyondourshores.org)

Communication strategies: monthly newsletters, webpage, awards for tagging

Other: research objectives can be found here and the monthly newsletter can be found here

Golden Hook Fishing Club (GHFC)

About: The Golden Hook Fishing Club (GHFC) was founded to promote and encourage the sport of saltwater fishing in the Virgin Islands. We are instilling an awareness of conservation and its impact on all marine life within our membership and the Virgin Island communities. You can become a part of this by filling out a membership form and committing some of your time to our

club. You can help to ensure that game fishing will continue in our islands as an environmentally safe and entertaining sport.

POC: Jeremy Janusziewicz (jeremy.janusziewicz@jacobs.com), Roby Keeley (robynkeeley@gmail.com), (ghfcstx@gmail.com)

Communication strategies: direct communication, outreach materials

Other: Facebook page with announcements and upcoming events can be found here

Gulf and Caribbean Fisheries Institute (GCFI)

About: The Vision of the Gulf and Caribbean Fisheries Institute (GCFI) is to become the most comprehensive and inclusive network in the Region for the exchange and dissemination of information on marine and estuarine science and resource issues. GCFI will accomplish this vision by developing partnerships with and facilitating communications among governmental and educational institutions, conservation and fisher organizations, and corporate entities. The Mission of GCFI is to advance the goals of sustainable use, wise management, conservation, and restoration of marine and estuarine fisheries and resources in the Region by providing a forum for the exchange of information and perspectives among decision-makers, scientists, managers, educators, resource users, and students. The Gulf and Caribbean Fisheries Institute (GCFI) was founded in 1947 to promote the exchange of current information on the use and management of marine resources in the Gulf and Caribbean region. From its beginning, GCFI has endeavored to involve scientific, governmental, and commercial sectors to provide a broad perspective on relevant issues, and to encourage dialogue among groups that often operate in relative isolation from one another. For 37 years, GCFI operated as an informal association under the sponsorship of the University of Miami. In 1985, with encouragement from the University, GCFI became an independent not-for profit corporation formally dedicated to its original purposes.

POC: Bob Glazer (bob.glazer@gcfi.org)

Communication strategies: listserv

Other: education initiatives can be found here; Fisheries for Fishers Initiative can be found here

Northside Sportfishing Club

About: The Northside Sportfishing Club was founded in 1988 and since then has held 33 Annual Bastille Day Kingfish Tournaments on Hull Bay Beach with the support of Hull Bay. Hideaway's past and present owners.

POC: Catherine Bryan (nssfcvi@gmail.com)

Communication strategies: direct communication, outreach materials

Other: Instagram page with announcements and events can be found here

Sociedad Ambiente Marino (SAM)

About: Sociedad Ambiente Marino (SAM) has led for more than 15 years the Community-Based Coral Aquaculture and Reef Rehabilitation Program in Culebra Island, resulting in the out-planting of over 75,000 colonies of ESA-listed Staghorn coral (Acropora cervicornis). SAM has conducted and collaborated in extensive multidisciplinary scientific research projects, producing an extensive archive of peer-reviewed publications. It has also actively participated in multiple forums regarding the planning and implementation of natural resource and environmental conservation public policy. SAM has also provided technical support to government institutions regarding environmental impact assessments and marine mitigation. The success of our science-based approach to conservation and restoration is supported by over 30 peer-review publications in the last five years. We have been recognized as leaders in marine conservation and restoration along with our members as part of the Intergovernmental Panel on Climate Change and Habitat Advisory Panel of the Caribbean Fishery Management Council. SAM is also part of the Coral Restoration Consortium, Latin American Coral Reef Restoration Consortium, the Puerto Rican Coral Reef Restoration Consortium, and the Association of the Marine Laboratories of the Caribbean. The success of our science-based approach in restoration is supported by over 30 peer-review publications in the last five years. SAM maintains a growing network of collaborative interagency level support, both from Puerto Rico's State and Municipal agencies, as well as Federal institutions, NGOs, and private organizations. It also maintains strong collaborative efforts with academia, including universities from Puerto Rico, the United States, Central America, and South America.

POC: Maribel Cruz (sam@sampr.org)

Communication strategies: student support, direct communication, public outreach and events, multidisciplinary collegiate group, workshops, seminars

Other: education programs can be found here

St. Croix Environmental Association (SEA)

About: St. Croix Environmental Association, known locally as S.E.A., is committed to protecting and conserving St. Croix's unique island environment and the people that reside on St. Croix. S.E.A. was formed as a grassroots organization in 1986. By creating innovative environmental education programs for children and adults, sponsoring engaging activities, doing scientifically and culturally informed conservation work, and remaining vigilant in seeking compliance with local and federal environmental regulations, the St. Croix Environmental Association continues to provide leadership for a healthy and sustainable environment. Through the years, SEA has planted over 20,000 trees on St. Croix including thousands of mangroves in Salt River in the wake of Hurricane Hugo, native trees for forest restoration at the Southgate Coastal Reserve, and hundreds of the endemic, endangered St. Croix Agave in cooperation with private landowners. SEA is well known as one the leaders in environmental education in the territory. Our programs focus primarily on connecting local students to their environment for a better understanding of

how they impact the environment and how the environment impacts them. We have reached thousands of students annually through programs such as field trips, and the Earth Day Eco-Fair.

POC: Olivia Walton (owalton@stxenvironmental.org)

Communication strategies: direct communication, outreach materials, social media, events

Other: environmental education resources can be found here

St. Thomas Fisherman's Association (STFA)

About: In January of 2005, the Caribbean Fisheries Management Council (CFMC) Sustainable Fisheries Act Amendment, proposed management measures which included closure of 240 square kilometers (93 square miles) of Virgin Islands shelf to fishing and seasonal closures for several species. The St. Thomas Fisherman's Association (STFA) started to oppose these measures, which its members felt were unjustified on the basis of the state of Virgin Islands fishery resources. The STFA was largely successful in negotiating with the CFMC to reduce closed areas and postpone species closures until further research is conducted. In 2021 the Eco-based Fisheries Management Plans will be approved for The Economic Exclusive Zone (EEZ). The approval of these plans will allow for island and species-specific fisheries management. The STFA has developed research programs and secured NOAA and other funding sources to independently study the fishery. This scientific information, along with the historical knowledge from generations of fishing, puts the STFA in a unique position to participate in fisheries resource management. Further, the STFA is now included in the decision-making councils, the St. Thomas/St. John Fishery Advisory Committee and the Caribbean Fisheries Management Council.

POC: Daryl Bryan (darylabryansr@icloud.com), Ruth Gomez (olewife@yahoo.com)

Communication strategies: direct communication, workshops, meetings, outreach materials

The Nature Conservancy (TNC)

About: The Nature Conservancy (TNC) is a global environmental nonprofit working to create a world where people and nature can thrive. Founded in the U.S. through grassroots action in 1951, the TNC has grown to become one of the most effective and wide-reaching environmental organizations in the world. Thanks to more than a million members and the dedicated efforts of our diverse staff and over 400 scientists, we impact conservation in 79 countries and territories: 37 by direct conservation impact and 42 through partners. The Caribbean is one of the world's most biologically diverse marine regions. Home to iconic wildlife and vulnerable coastal communities, the region's once abundant ocean, coasts and coral reefs have suffered alarming decline. For more than 40 years, TNC has been protecting the breathtaking beauty that makes the Caribbean the unique paradise that it is and the resources that sustain the millions who live there.

POC: Rob Brumbaugh (caribbean@tnc.org)

Communication strategies: newsletter, public outreach, student projects, magazine

Other: educational resources can be found here

Virgin Islands Game Fishing Club (VIGFC)

About: In early 1960 Captains Johnny Harms, Jerry Black, Mike Benitez and Jimmy Loveland and their anglers were pioneers of the "North Drop" and the fabulous Blue Marlin Fishing there. A few years later Captains Tommy Gifford, A.T. Horne, Red Bailey, Spike Herbert, Butch Gonsalves, Lincoln Richardson and Vincente Oquendo arrived to fish the famous "North Drop". The word spread around the world and the Virgin Islands became known as the Blue Marlin Capital. Year after year the area is still one of the most consistently producing fishery's in the world. When Johnny Harms started to build the Lagoon Marina, now American Yacht Harbor, the Virgin Islands Game Fishing Club bought a parcel of land overlooking the marina. The Club under the direction of founding members Howard Crouse, Hoppy Hampton, Frank Illich and Robert Schultz, along with other members, built a three story building on the property. This building now houses the Club on the second floor. In 1995 under the direction of member Michael Bornn, a monument was built and painted by renown marine artist Carey Chen, honoring those Blue Marlin Captains that discovered the "North Drop". This monument is located in front of the building.

POC: Kelvin Bailey Jr. (kelvin.baileyjr@gmail.com)

Communication strategies: direct communication, outreach materials

Other: upcoming outreach events can be found here

Virgin Islands Good Food Coalition

About: The Virgin Islands Good Food Coalition is dedicated to cultivating a thriving and just local food system in the US Virgin Islands. A food system that supports USVI farmers and producers. and ensures that healthy good food is accessible to every resident in the territory. Our Work Focuses on Advancing a) food security by building partnerships and markets to drive more local food production and reduce barriers to access good food for every individual, while working for a more self-sufficient and resilient food system, b) food sovereignty by ensuring the USVI has self-determination of food choices at home, in school, and in stores, instead of allowing global supply chains to decide what Virgin Islanders can buy and cook to eat, c) food justice through food that is affordable, nutritious and culturally appropriate and supports physical, economic and community health; regenerates, and respects natural resources and animals; and ensures that all people involved in the value chain live with dignity and freedom from oppression and exploitation. d) sustainable and regenerative practices by promoting the restoration and conservation of USVI's soil, air, and water, and encouraging agro-ecological farming practices that secure a healthy environment for future generations to enjoy and thrive. Our programs serve farmers, fishers, producers and the USVI community at large. Virgin Islands Good Food bridges the gaps between food system stakeholders and leverages resources to increase local food production and build food security in the USVI.

POC: Emily Graci (emily@goodfoodvi.org)

Communication strategies: direct communication, social media, marketing and sales

Other: information on the new virtual farmers market can be found here

Virgin Islands Network of Environmental Educators (VINE)

About: The Virgin Islands Network of Environmental Educators (VINE) is a network of environmental education and outreach professionals from more than 25 local agencies and community groups that are working to improve the quality of environmental and cultural education programs available to Virgin Island's youth. VINE builds capacity for environmental and cultural education in the Virgin Islands; links K-12 educators, natural & cultural resource organizations, and community leaders; provides teachers with Science Inquiry-based and Experiential Learning Workshops; and provides environmental and cultural education to teachers, youth, and community groups.

POC: Jen Valiulis (sea.educator@gmail.com)

Communication strategies: direct communication, outreach materials, social media

Other: social media resource directory can be found here

Ratio Stations

USVI

931. FM WTJX

About: 931. FM WTJX is the local public radio affiliate of the USVI. USVI DFW has used this radio to get press releases and important fishery-related information to the fishers on the radio, in print, and on their website. On their morning show, Analyze This with former Senator Neville, James, they discuss community topics including fishery-related information.

POC: Marcellina Ventura Douglas (mvdouglas@wtjx.org, 340-244-7833)

Communication strategies: radio communication, print, website

Other: live earth cam can be found here and educational information can be found here

FM 107.9 WLDV - DaVybe

About: FM 107.9 WLDV - DaVybe is the local music and news radio station for the USVI. They have a popular morning talk show, In Da Morning with Sheldon Turnbull, which is a good avenue to share important fishery-related information.

POC: Contact request form (https://davybe.com/)

Communication strategies: radio communication, website, social media, newsletter

95.1 FM Isle 95

About: 95.1 FM Isle 95 is a music and morning talkshow radio station in the USVI, although it is popular in St. Croix. The Big Phat Morning Show is a good avenue to share fishery-related information.

POC: Phone number (340-773-3636)

Communication strategies: radio communication

STT/STJ

AM 1340 WSTA

About: AM 1340 WSTA provides local news broadcasts and talkshows to St. Thomas and St. John. On their PM evening talkshow, they discuss idea and local issues including fishery-related topics.

POC: Email contact (info@wsta.com), phone number (340-777-4500)

Communication strategies: radio communication, website, social media

AM 1000/Radio One

About: AM 1000/Radio One provides local news and talkshows to St. Thomas and St. John. They have a popular AM talkshow, The Morning Mix with Liston Davis, that discusses community issues, news, and updates including fishery-related information.

POC: Management email (management@radio100.net), Sales email (sales@radio100.net), phone number (340-776-1000)

Communication strategies: radio communication, website, social media

FM 105.3 JAMZ

About: FM 105.3 JAMZ provides music and local news to St. Thomas and St. John

POC: Email contact (jwnixon@amg.vi), phone number (340-227-7320)

Communication strategies: radio communication, social media

STX

91.9 FM - Radio Pailove

About: 91.9 FM – Radio Pailove is a Spanish speaking community radio station for music, talk, and news in St. Croix.

POC: Contact form (https://www.papiloveradio.com/contacto), email contact (crucianedu@yahoo.com)

Communication strategies: radio communication

AM 970 - WSTX

About: AM 970 – WSTX is a news and talk radio station in St. Croix. There are a variety of morning talkshows with different hosts that discuss community topics and news. The morning shows with Mary Moorehead, Mario Morehead, or the news reports at 8:00 AM, 12:00 PM, and 5:30 PM are good avenues to share important fishery-related information.

POC: Phone number (340-773-0390, 340-773-0490)

Communication strategies: radio communication

Territorial Agency

Coastal Zone Management, Division of Territorial Parks (CZM)

About: The U.S. Virgin Islands <u>Coastal Zone Management</u> (CZM) Program was established to manage, enhance, protect, and preserve our coastal resources, while reducing conflict between competing land and water uses. It represents a comprehensive approach to minimizing the impacts of activities on our coastal resources. Our program is strongly committed to the overall management of the coastlines to ensure environmental and economic sustainability for future generations.

POC: Kristina "Kitty" Edwards (kristina.edwards@dpnr.vi.gov), Matthew Warham (matthew.warham@dpnr.vi.gov)

Communication strategies: direct communication, outreach materials

Other: outreach and education resources can be found here

Department of Planning and Natural Resources, Division of Fish and Wildlife (DPNR, DFW)

About: The DPNR Division of Fish and Wildlife (DFW) preserves, protects, restores, and manages the fish and wildlife resources of the Virgin Islands for ecological conservation and sustainable use by the community. The Division of Fish and Wildlife consists of (3) Bureaus; The Bureau of Environmental Education provides access and knowledge to the public, the Bureau of Fisheries aids recreational and commercial fishers, and the Bureau of Wildlife coordinates wildlife issues and populations.

POC: Sennai Habtes (sennai.habtes@dpnr.vi.gov)

Communication strategies: all territorial fisheries communication

Other: fisher resources can be found here

Department of Natural and Environmental Resources (DNER)

About: The Puerto Rico <u>Department of Natural and Environmental Resources</u> (DNER) is focused on protecting, conserving and managing the natural and environmental resources of our Island Puerto Rico and all the keys, islands and islets that surround it.

POC: Ricardo Lopez Ortiz (rlopez@drna.pr.gov), Grisel Rodriguez-Ferrer (grodriguezf@drna.pr.gov)

Communication strategies: webpage, educational events calendar

Other: communication, notifications, and events can be found here

Fisheries Liaison - PR

About: Fisheries liaisons goals are to 1) support communications amongst the Departmentento de Recursos Naturales y Ambientales (DRNA), the Caribbean Fishery Management Council (CFMC), the fishers of Puerto Rico and the general public, 2) to work directly with DRNA and the Fishery Research Laboratory (FRL), 3) review correspondence, meeting transcripts, and applicable rules, laws, and regulations, as required, 4) create informational content for the public and for fishers to disseminate information regarding activities, policies, rules, regulations and laws, 5) work to establish and maintain effective and harmonious working relationships with employees of DRNA, local and federal officials, fishers, and the general public, 6) attend the CFMC meetings, District Advisory Panel meetings, Outreach and Educational Meetings, and PR Fisheries Advisory Board meetings, plus additional meetings or collaborative experiences, as required by the FRL or CFMC, and 7) coordinate the Commercial Fishers Education Program (CFEP).

POC: Wilson Santiago (wilsonsantiagocfmc@gmail.com)

Communication strategies: direct communication, email, social media, outreach materials

Fisheries Liaison - STT/STJ

About: Fisheries liaisons goals are to 1) support communications amongst the Division of Fish and Wildlife (DFW), the Caribbean Fishery Management Council (CFMC), the fishers of St. Thomas/St. John and the general public, 2) to work directly with DFW and the Fishery Research Laboratory (FRL), 3) review correspondence, meeting transcripts, and applicable rules, laws, and regulations, as required, 4) create informational content for the public and for fishers to disseminate information regarding activities, policies, rules, regulations and laws, 5) work to establish and maintain effective and harmonious working relationships with employees of DFW, local and federal officials, fishers, and the general public, 6) attend the CFMC meetings, District Advisory Panel meetings, Outreach and Educational Meetings, and STTJ Fisheries Advisory Board meetings, plus additional meetings or collaborative experiences, as required by the FRL or CFMC, and 7) coordinate the Commercial Fishers Education Program (CFEP).

POC: Nicole Greaux (nicolegreaux.cfmc@gmail.com)

Communication strategies: direct communication, email, social media, outreach materials

Fisheries Liaison - STX

About: About: Fisheries liaisons goals are to 1) support communications amongst the Division of Fish and Wildlife (DFW), the Caribbean Fishery Management Council (CFMC), the fishers of St. Croix and the general public, 2) to work directly with DFW and the Fishery Research Laboratory (FRL), 3) review correspondence, meeting transcripts, and applicable rules, laws, and regulations, as required, 4) create informational content for the public and for fishers to disseminate information regarding activities, policies, rules, regulations and laws, 5) work to establish and maintain effective and harmonious working relationships with employees of DFW, local and federal officials, fishers, and the general public, 6) attend the CFMC meetings, District Advisory Panel meetings, Outreach and Educational Meetings, and STX Fisheries Advisory Board meetings, plus additional meetings or collaborative experiences, as required by the FRL or CFMC, and 7) coordinate the Commercial Fishers Education Program (CFEP).

POC: Liandry De La Cruz - Quiones (delacruzliandry@gmail.com), Mavel Maldonaldo (mavelamor@hotmail.com)

Communication strategies: direct communication, email, social media, outreach materials

Local Food and Farm Council

About: St. Thomas Members of the Committee on Economic Development and Agriculture voted in favor of a bill to establish a Local Food and Farm Council in accordance with the Virgin Islands Agriculture Plan. The measure seeks to create a Local Food and Farm Council established within the University of the Virgin Islands for budgetary purposes only. The Local Food and Farm Council is composed of 11 members, with each nongovernmental member serving a three-year term. Senator James stated that the St. Thomas/St. John District, the St. Croix District, and the British Virgin Islands should collaborate in food production and transportation. Furthermore, we should work towards a five percent reduction of imported food in the Territory within the next five years.

POC: Jacquette Maynard (Jacquette.maynard@uvi.edu)

Communication strategies: education materials

Other: community initiatives can be found here

Marine Recreational Fishing Statistics Program

About: The Marine Recreational Fishing Statistics Program emerged in 1999 and extends until 2013, as an effort by state and federal agencies to monitor recreational fishing in Puerto Rico. This Program had the primary mission of developing a broad overview of what made up marine recreational fishing on the Island. In 2014, this Program went through significant changes in the logistics of data collection. Since then, the design of the interviews is complemented with information that was not previously collected. This new version of the Program allows us to learn additional aspects of recreational fishermen that help achieve adequate management of the fishing resource. With the data obtained through interviews with fishermen and the data collected in marine recreational fishing tournaments, the Department of Natural and Environmental Resources (DRNA) obtains a clear image of recreational fishing and its importance as a recreational activity, its positive economic impact and the fishing resource of the Island. The information provided by the Program has been essential in making decisions regarding the wise management of the fishing resource, as well as to provide adequate facilities to users.

POC: Yamitza Rodriguez (yrodriguez@drna.pr.gov)

Communication strategies: social media

Other: social media webpage can be found here