



Marine Outreach and Education USVI Style
Improving Fishing Community Awareness and Compliance:
2014 Commercial Fisher Workshop Summary



FINAL Report

November 19, 2014

This document was prepared by **Lia A. Ortiz**, of ECS Federal Services, Inc.,
for the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service
(NMFS) and Coral Reef Conservation Program



Acknowledgements

Funding for this report was provided by the NOAA Coral Reef Conservation Program. The following individuals provided a thorough technical review: Jocelyn Karazsia (NOAA National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) Habitat Conservation Division), Kurtis Gregg (NOAA National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) Habitat Conservation Division), Rene Esteves Amador (NOAA National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) Protected Resources Division) and Marlon Hibbert (NOAA Coral Reef Conservation Program).

Special thanks to the staff of the following agencies that assisted in project planning, coordination and implementation, as well as support through provision of outreach materials for this project: NOAA Coral Reef Conservation Program, USVI Division of Fish and Wildlife, USVI Division of Environmental Enforcement, USVI Coastal Zone Management St. Croix East End Marine Park Office, US Coast Guard, The Nature Conservancy, NOAA National Marine Fisheries Service (NMFS) Southeast Regional Office (SERO) Protected Resources Division, Sustainable Fisheries Division and Highly Migratory Species, NMFS Southeast Fisheries Science Center, Caribbean Oceanographic Restoration and Education Foundation, Caribbean Fishery Management Council, St. Croix Commercial Fishermen's Association, St. Thomas Fishermen's Association and the USVI commercial fishing community.

Table of Contents

Executive Summary	1
Introduction	3
Background	3
Workshop Goals and Objectives	5
Planning and Coordination	6
Implementation and Outcomes	9
Limitations, Opportunities for Improvement, and Next Steps	15
Appendix A. Newspaper Advertisement.....	18
Appendix B. Notice of Corrections.....	20
Appendix C. Presentations.....	22
Appendix D. CORE Lionfish Survey (STX).....	45

List of Tables

Table 1. Steering Committee	7
Table 2. Presenters, Presentations and Outreach Materials.....	8
Table 3. Number of Fishers and Helpers Engaged in 2013 Registration and Workshop Compared to Total Registered in 2012	11
Table 4. Number of Fishers and Helpers Engaged in 2014 Registration and Workshop Compared to Total Registered in 2012 and 2013.....	12

List of Figures

Figure 1. <i>Some of the Agency and Organization Staff for St.Croix (STX) Workshops.</i>	13
Figure 2. <i>Some of the Agency, Organization Staff and Fisher Participants for St.Thomas (STT) Workshops.</i>	14

List of Acronyms

Acronym	Phrase
ACLs	Annual Catch Limit(s)
CCR	Commercial Fisher Catch Report(s)
CFMC	Caribbean Fishery Management Council
C,O&E	Communications, outreach and education
CORE	Caribbean Oceanographic and Restoration Education Foundation
CRCP	Coral Reef Conservation Program (NOAA)
CZM	Coastal Zone Management (DPNR)
DEE	Division of Environmental Enforcement (DPNR)
DFW	Division of Fish and Wildlife (DPNR)
DPNR	Department of Planning and Natural Resources (USVI)
EEZ	Exclusive Economic Zone
MOES-VI	Marine Outreach and Education USVI Style
NGO	Non-governmental Organization
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
POC	Point of Contact
RFP	Request for Proposal
SEFSC	Southeast Fisheries Science Center (NMFS)
SERO	Southeast Regional Office (NOAA)
STXEEMP	St. Croix East End Marine Park
TNC	The Nature Conservancy
USCG	United States Coast Guard
USVI	United States Virgin Islands

Executive Summary

Building awareness of and understanding for management actions is necessary at the community level to ensure more conservation-driven actions and better informed management decisions, i.e. obtaining and using accurate data. Once community stakeholders have grasped the importance of accurate Commercial Catch Report (CCR) data and how they are utilized in management to ensure sustainability of their resources, it is expected that there will be more community support for management actions and improved stewardship behaviors. Also, building community stakeholder understanding of the implications for management regulations will set a foundation for driving a sustainable future for the USVI marine environment and its resources.

The Improving Fishing Community Awareness and Compliance project is one of several projects under the Marine Outreach and Education – Virgin Islands Style (MOES-VI) brand, led by the US Virgin Islands (USVI) Department of Planning and Natural Resources (DPNR), with support from the NOAA Coral Reef Conservation Program's (CRCP) USVI Fisheries Liaison. The project creates a process for building fisher awareness and knowledge of fisheries management regulations. This project is a collaboration between the DPNR Division of Fish and Wildlife (DFW), DPNR Division of Environmental Enforcement (DEE), and the CRCP, with input from the Caribbean Fishery Management Council (CFMC). The main goal of this project is to build community awareness of current fisheries rules and regulations as well as contemporary fisheries issues and notices from relevant agencies and non-governmental organizations. This project has also created a more efficient fisher registration process by building DPNR technical and staff capacity while organizing the process of registration and aims to continue improving upon this effort.

This project was first implemented in July 2012 in both the St. Thomas/St. John and St. Croix districts with a focus on topics such as annual catch limits (ACLs) and commercial catch data. During this time, approximately 220 commercial fishers and helpers (permitted individuals that help fishers with fishing tasks) viewed the presentation in both St. Thomas and St. Croix. Anecdotally, the 2012 presentation was deemed successful at improving fisher awareness regarding the accuracy of filling out commercial catch report (CCR) forms and the significance of reliable data collection for fisheries management (i.e. ACLs). Thus, the effort was repeated in July 2013 and presentations were expanded to include fisheries topics and facilitators from other agencies and non-governmental organizations, including USVI Division of Fish and Wildlife, USVI Division of Coastal Zone Management (CZM) St. Croix East End Marine Park (STXEEMP) Office, CRCP, US Coast Guard (USCG), and Ecotrust, Inc. A total of 213 fishers were engaged in the July 2013 implementation in both districts, which represents 73% of the total fishers on the books (290 per DFW in October 2013); thus, project implementation was deemed a success in 2013 in terms of meeting awareness-building objectives.

A total of 190 fishers were engaged in the July 2014 implementation in both districts, which represents 66% of the total fishers on DFW's rosters (i.e., 290 per DFW in August 2014). The new registration process protocol involves the scheduling of appointments for 15 fishers and helpers at a time, every hour and a half, from 9am-12pm and 1:30-3pm over the course of 3 days during the second week of July in St. Croix and the third week of July in St. Thomas/St. John. This new process proved to be more efficient than in the past where walk-ins were allowed, which could be overwhelming for agency staff and frustrating for fishers. There were some challenges and limitations as is the case with any newly implemented project, specifically technical issues and deficiencies, and lack of staff capacity and resources. In addition, The Nature Conservancy staff provided added capacity during implementation of the July 2014 fisher registration workshops.

There were various challenges and limitations to affected implementation of the fisher

registration workshops in July 2014 as have been encountered in past-primarily lack of staff and technical capacity. Consequently, Effectiveness is difficult to measure in terms of evaluating compliance. One way to accomplish this evaluation would be a review of the quality and rate of return of catch reports being turned in to DFW. At this time, the technical and staff capacity for such a review is lacking to insure this quality assurance and the current mechanism by which the data is received, stored and managed is not conducive to conducting an evaluation. Discussions are underway with local and regional resource managers at this time in regards to improving data collection and fisheries management in the US Caribbean in general. With a move towards island-specific management plans in the near future, now would be the ideal time to reconstruct the data collection and management process in the USVI. Though these plans are island-specific and may require differing information on a variety of species and fishing methods, the mechanisms by which these data are collected, stored, managed and assessed should be the same for ease of decision making when decisions for management are considered Territorial.

Several recommendations for improving these workshops in the future would be to create a programmatic structure for the workshops, inclusion of the project in the Territory's cooperative agreement as a consideration program sustainability, evaluation of workshop effectiveness, working with local and regional partners to improve consistency of data collections/methods in the US Caribbean, identification of other funding opportunities and inviting two representatives from the commercial fishing community to serve on the steering committee (i.e. one for St. Thomas/St. John and one for St. Croix).

Nonetheless, building awareness of and understanding for management actions is necessary at the community level to ensure more conservation-driven actions and better informed management decisions, i.e. obtaining and using accurate data. Once community stakeholders have grasped the importance of accurate CCR data and how they are utilized in management to ensure sustainability of their resources, it is expected that there will be more community support for management actions and improved stewardship behaviors. Also, building community stakeholder understanding of the implications for rules and regulations will set a foundation for driving a sustainable future for the USVI marine environment and its resources.

Introduction

Fishing impacts, land-based sources of pollution, and climate change are the three main stressors of coral reefs and their resources in the U.S. Virgin Islands (USVI) and wider Caribbean as determined by both federal and local resource managers during priority setting exercises.¹ Resource managers and community supporters (i.e., fishing associations, academia, scientists, and non-governmental organizations (NGOs)) recognize the need for building USVI community capacity to participate in natural resources management and to play a more active role in community-led conservation as a way of reducing human-based stressors to coral reefs and fisheries resources. To achieve this, the USVI is making marine-based topics awareness a top priority, looking for ways to get the communities to take ownership of the marine resources, and building relationships between the community and managers in order to gain support for necessary management actions. To address these priorities, and with funding from CRCP, a series of projects has been developed under the brand of “Marine Outreach and Education USVI Style (MOES-VI)”.

The *Improving Fishing Community Awareness and Compliance project* is one of several projects under the MOES-VI brand, led by DPNR and with support from the CRCP USVI Fisheries Liaison. The project aims to develop an effective and efficient process for building fisher awareness and knowledge of fisheries management regulations. The project has been developed as collaboratively between DPNR DFW, DPNR DEE and CRCP, with input from the Caribbean Fishery Management Council (CFMC).

Background

The DFW has recognized the need to engage and educate fishers on the importance of accurate commercial catch data. DFW sought assistance from the CRCP Fisheries Liaison, Ms. Lia Ortiz (project coordinator and report author), in the development of an effective commercial fisher catch report (CCR) training module to be implemented during the commercial fishing license registration process, as well as assistance in making registration a more efficient process. The CCR training module was conceptualized in 2012 and developed in 2013 with funding from NOAA CRCP. This training module consists of: (1) a PowerPoint presentation highlighting the distinct sections of the CCR, outlining the instructions for each section, and illustrating the significance of accurate CCR data and its use for fisheries management. The presentation is also meant to be adaptive to highlight new regulations annually; (2) the updated DFW Commercial and Recreational Fishers Handbook, including the latest rules and regulations for territorial waters and the Exclusive Economic Zone (EEZ), a modified CCR fishing grid map, and a fully translated Spanish version of the Fisher handbook ; (3) a waterproof brochure with species identification and a summary of rules and regulations, which has recently been revised and translated into Spanish (funds are being sought for printing of the revised and translated versions).

This project was first implemented in July 2012 and then again in 2013, with a focus on topics such as annual catch limits (ACLs) and commercial catch data. In July 2012, approximately 220 commercial fishers and helpers viewed the presentation in both St. Thomas and St. Croix, and 213 in 2013. Anecdotally, this presentation was deemed successful at raising fisher awareness regarding the accuracy of filling out catch report forms and the significance of reliable data collection for fisheries management (i.e. ACLs); this is due to the success of having engaged many of the commercial fishers and helpers in 2012 and 2013 and the anecdotal comments made by the fishers and local resource managers of

how effective they perceived the workshops to be. As a result, MOES-VI partners decided that it would be in the best interest of USVI fisheries resource management to implement the workshops again in 2014 with aim to do so on an annual basis. The registration process in 2012 and 2013 were also different whereby fishers were encouraged to make appointments for registration rather than just showing up whenever they wanted between the hours of 9am and 2pm. The 2014 workshops were implemented with aim to build upon the successes and reduce the limitations experienced in the 2012 and 2013 workshops.

¹In 2007, CRCP had undergone an external review which resulted in a Final Report that recommended CRCP consolidate and sharpen the goals from the original 13 described as part of the National Coral Reef Action Strategy. Furthermore, the review panel recommended that CRCP focus more attention and resources on addressing the impacts of unsustainable fishing on coral reef ecosystems which prompted the creation of a Roadmap for the Future of the Coral Program in 2008. This document guided a reprioritization process, and ultimately, the development of the CRCP's National Goals and Objectives 2010-2015 document which features 20-year goals and 5-year objectives that are pinpointed around three priority threats: climate change impacts, fishing impacts, and impacts from land-based sources of pollution (LBSP). In 2002, the US CRTF adopted "Puerto Rico Resolution," calls for the development of three-year Local Action Strategies (LAS) focusing on the conservation of coral reefs. The goals and objectives of the LAS are linked to those found in the U.S. National Action Plan to Conserve Coral Reefs, adopted by the US CRTF in 2000. There were thirteen goals outlined in the National Action Plan and the US CRTF prioritized six threat areas as the focus for immediate action: (1) over-fishing, (2) land-based sources of pollution, (3) recreational overuse and misuse, lack of public awareness, (4) climate change and (5) coral bleaching, and (6) disease. Additional focus areas were identified in some jurisdictions including: invasive species (Hawaii), population pressure (American Samoa), and maritime industry and coastal construction impacts (Florida). LAS are locally driven initiatives designed to identify and implement priority actions to reduce key threats to coral reefs through partnerships and collaborative actions among federal, state, territorial, and non-governmental partners. The LAS process has not been consistent through jurisdictions in terms of development and implementation time and priority strategies and this is because jurisdictional priorities differ and the mechanisms to address priorities differ based on distinct ecology, culture and economies. The US Virgin Islands (USVI) LAS process began in 2003 with the establishment of the first marine protected area in the USVI, the St. Croix East End Marine Park (STXEEMP). These areas represent a ridge-to-reef approach to coral reef management and include both coral reef habitat and associated watershed areas. Committees were formed for four LAS topic areas (Table 1): (1) recreational use, (2) land based sources of pollution, (3) fishing, and (4) lack of awareness. Members of the community were invited to join the committees and develop locally based strategies to mitigate the threats to coral reefs within the STXEEMP. By September 2004, a LAS for each of the focus topic areas were completed and presented to the general public. Community members ranked LAS projects in order of importance: high, medium and low priorities. This information was then used to inform the official first LAS plan for the USVI to be implemented in fiscal years 2005-2007. Building upon the LAS process and in attempt to broaden the scope of geographic LAS areas, in 2009, local and federal resource managers and stakeholders worked together in the priority setting process (PSP) to develop coral reef management priorities, or a priority setting document (PSD), for the USVI territory (The Territory of the United States Virgin Islands and NOAA Coral Reef Conservation Program, 2010). The PSD is used by NOAA in conjunction with the 2010-2015 Coral Reef Conservation Program Goals and Objectives document to direct its investment in activities in each jurisdiction through grants, cooperative agreements and internal funding. Financial sustainability of USVI coral reef management agencies is highly dependent upon federal funding by NOAA (Page et al. 2012) and thus prioritization of coral reef management activities is necessary for appropriate allotment of funds in the Territory. For instance, during 2002-2006, the CRCP provided \$1,227,670 for projects in the USVI that addressed LAS threats, with \$472,400 directed towards projects that fell within the scope of LAS for overfishing (NOAA Coral Reef Conservation Program, 2006). As a result of the PSD, local and federal resource managers collaborated on the development and implementation of the second LAS process in the USVI. Meeting outcomes suggested the development and implementation of Local Action Strategies in four geographic areas of the USVI: (1) STXEEMP, (2) St. Thomas East End Reserve (STEER), (3) Coral Bay, St. John and (4) Fish Bay, St. John. In 2010, the Lighthouse Consulting Agency was contracted to host workshops for the development of specific LASs to be implemented in Coral and Fish Bay which has resulted in a draft document. To this point, final LASs for these two priority sites have not been completed and for this reason, this document will focus primarily on the progress of fishing-related LASs in the STEER and STXEEMP. The STEER and STXEEMP management plans serve as the LAS guiding documents for addressing coral reef management priorities in the Territory.

Source: NOAA CRCP. 2014. *Fisheries Local Action Strategies Projects in the US Virgin Islands: Progress and Direction*. Prepared by Lia A. Ortiz of MRAG Americas. May be accessed at: http://data.nodc.noaa.gov/coris/library/NOAA/CRCP/project/702/Fisheries_LAS_Progress_and_Direction_LO_October_2014_Final.pdf

Workshop Goals and Objectives

Implementation of the 2012-2014 workshops and their perceived successes and limitations, as well as the need for continued engagement and education of commercial fishers pertaining to fisheries resource management and conservation contributed to the conception of the following goals and objectives:

Goals

1. To develop, implement, and institutionalize an effective and efficient commercial fisher catch report training for USVI commercial fishers.
2. To develop, implement, and institutionalize an effective and efficient fishing license registration protocol for the USVI DPNR DFW and DEE.
3. To improve fishing community awareness of contemporary fisheries issues, rules, and regulations.
4. To improve fisher compliance with fisheries regulations.

Objectives

- 1A.** Develop a comprehensive CCR training module for commercial fishers.
- 1B.** Incorporate this CCR training module in DFW's annual work plan.
- 2A.** Develop a protocol for fishing license registration to be executed by DFW and DEE annually.
- 2B.** Seek administrative approval for institutionalizing this protocol to ensure sustainability of the protocol through time while allowing flexibility.
- 3 and 4.** Provide commercial fishers with educational workshop sessions and modules on an annual basis.

Planning and Coordination

In January 2014, project partners reconvened at the USVI DPNR Division of Environmental Enforcement in St. Croix to discuss outcomes of the 2013 implementation of the fisher registration workshops. Partners agreed that the introduction of appointments in the 2012 implementation worked well but rather than just a newspaper announcement, fishers also received courtesy calls by DFW in 2013 and 2014. Additionally, in order to make the registration process more efficient, DFW and DEE worked together with support from CRCP to create an Access database which stores all relevant registration information for DFW and DEE introduced in 2013 and was improved for continued use in 2014. This database was accessed during the 2014 registration to print out both DFW and DEE licensing forms. During the 2012 workshops, the fishers received one presentation which was a collaborative effort between DFW and CRCP which stressed the significance of accurately filling out their commercial catch reports and what that means for fisheries management, specifically annual catch limits (ACLs). This presentation was given as part of a module that included an updated USVI DFW Commercial and Recreational Fisher Handbook which the fishers received and a water proof brochure with some local and Federal fishing regulations on either side (these were not funded in time and were given to fishers in 2013 as a result of FY13 CRCP funds). Partners realized from 2012, the value of the fisher registration process as a venue for engaging with and reaching out to commercial fishers and so there was continued support for implementation of the 2013 and 2014 workshops with increased educational opportunities.

As of 2013, a steering committee had been formed comprised of DFW and DEE personnel, the CFMC Chair and the NOAA CRCP's USVI Fisheries Liaison (Coordinator) in order to develop and implement the previously-stated goals and objectives of the project. Table 1 lists the steering committee members and the agencies they represent. Throughout FY14, there were approximately 5 steering committee meetings where in some instances not all members were present but were kept in the loop via e-mails and phone calls by the Coordinator. Tasks and deadlines were assigned to committee members for driving the goals and objectives forward.

In 2013, the steering committee decided that other resource management agencies and conservation organizations should be invited to give presentations on marine and fisheries management objectives that their entities were proposing or are in the process of executing. Invitations were given to entities that have displayed interest in participation after the 2012 workshops, i.e. USCG, CZM, Ecotrust, Inc., CFMC and NOAA NMFS SERO Protected Resources Division, which all showed interest and committed to providing either a formal presentation or outreach materials. The Nature Conservancy's Sustainable Seafood Campaign's coordinator was also invited to present but wasn't able to due to schedule conflicts. Table 2 lists these entities, the point of contacts (POCs), the name of their presentation and materials disseminated as part of their presentations. The role of these entities in 2013 and their presentations can be seen in the MOES-VI IFCACP 2013 Commercial Fisher Workshop Summary. These entities were invited back in 2014 along with several other entities which resulted in the following 2014 workshops' presenters: DPNR DFW, NOAA CRCP, NMFS SEFSC, CORE, TNC, USCG and outreach materials provided by NMFS SERO SFD and HMS Divisions. Presenters were given the option to provide a PowerPoint presentation or just a verbal presentation and so those presentations involving PowerPoints can be found in Appendix C. 2014 workshop registration packets with handouts and materials can be requested from the Coordinator. Appendix B is a notice of corrections for the CCR training module's waterproof brochure component. A revised version of the brochure in both English and Spanish will be made available in the near future.

Planning and coordination occurred with funding from CRCP. Resources were leveraged from local resource managers and management supporters.

Name	Organization	Position	Contact	Role
Lia Ortiz	NOAA CRCP	USVI Fisheries Liaison	Lia.Ortiz@noaa.gov	Project Coordinator
Juan Cruz	DFW	Environmental Specialist Trainee	Juan.Cruz@dpr.vi.gov	Advisor and Facilitator
Mekisha George	DFW	Environmental Specialist I	Mekisha.George@dpr.vi.gov	Advisor and Facilitator
Roy Pemberton, Jr.	DFW	Director	Roy.Pemberton@dpr.vi.gov	Advisor
William Coles	DFW	Chief of Education	William.Coles@dpr.vi.gov	Advisor
Thomas Dolan	DFW	Chief of Fisheries	Thomas.Dolan@dpr.vi.gov	Advisor
Howard Forbes	DEE	Acting Director	Howard.Forbes@dpr.vi.gov	Advisor
Carlos Farchette	CFMC	Chair	carlosfarchette@gmail.com	Advisor

Table 1. 2014 Steering Committee Members

As a result of the 2012, 2013 and 2014 fisher registration workshop implementations, project partners are concerned about the sustainability of this effort and measurements of its effectiveness and so there are plans to include this activity as part of a programmatic plan under the Marine Outreach and Education USVI Style initiative, which is described further in following sections.

Table 2. Presenters, Presentations and Outreach Materials

Entity	Points of Contact (s)	Presentation(s)	Disseminated Materials	STX Registration	STT Registration
NOAA CRCP	Lia Ortiz	Introductions and Announcements	NMFS HMS outreach materials, MOES-VI DSTF films and magazines (2014), MOES-VI waterproof summary brochures		
DFW	Juan Cruz	Commercial Fisher Training and Registration 2014-2015	MOES-VI waterproof summary brochures		
	Mekisha George		MOES-VI waterproof summary brochures		
NOAA SEFSC	Scott Crosson	Economic Fisher Surveys	Surveys		
NMFS SERO HMS	Randy Blankenship	N/A	NMFS HMS outreach materials		
NMFS SERO SFD	Miguel Lugo	N/A	Summary of Fisheries Rules and Regulations in the EEZ		
CFMC	Diana Martino	N/A	ACL outreach materials, DSTF films and magazines (2014)		
PR Seagrant	Janette Ramos	N/A	DSTF films and magazines (2014)		
TNC	Kemit Amon Lewis	Reef Responsible campaign	Reef Responsible Campaign sign-up sheet and calendars		 **Materials only
CORE	Nadija Packaukas	Lionfish interactive presentation	Lionfish surveys (See Appendix D for Results)		
STXEEMP-CZM	John Farchette	N/A	STXEEMP Map and Regulations Handout		
USCG	Officers Lopez and Adam	Dock Examinations	Dock Examination Checklist		
	Carl Jehle				

Implementation and Outcomes

This project was first implemented during July 2012, then again in 2013 and 2014, with focus on topics such as regulations for annual catch limits and commercial catch data reporting (2012) and additional topics in 2013 and 2014 (See Table 2). During this time, approximately 220 commercial fishers and helpers were engaged in registration and the workshop in 2012, 213 engaged in 2013 and 201 engaged in 2014. Anecdotally, the steering committee deemed the new commercial fishing license registration protocol and the workshops successful at building fisher awareness regarding fisheries management issues in the USVI for the past years in terms of content and efficiency.

Registration occurs annually at the DPNR DEE in both jurisdictions, during the second week of July for the St. Croix district and during the third week of July for the St. Thomas/St. John district. The first three days of each week are solely dedicated to commercial fishing and boating license registration. The last few days of those weeks, and a month prior to these weeks in July, are designated for boating license registration. One month prior to all registrations, a newspaper advertisement is sent out by DEE outlining the registration dates and protocol (Appendix A). DFW also provides commercial fishers with a courtesy call to schedule an appointment and to be informed of all necessary materials to bring to registration. DEE officers had given handouts in 2012 and 2013 to fishers at fish markets and landing sites, but were not able to do so in 2014 due to capacity limitations. Appointments are set for 10-15 fishers at a time for the workshop and registration. In 2014, there were some changes made by DFW from the typical five appointment slots, i.e. 9am, 10am, 11am, 1pm, and 2pm. In St. Croix, there were a total of three appointment slots per day: 9:30am, 11am, and 1:30pm. In St. Thomas, there were a total of four appointment slots: 8:30am, 10am, 11:30am and 1pm.² During these appointments, fishers entered and provided both their boating and fishing licenses registration information to the DEE receptionists and DFW staff/student intern and proceeded into the workshop. Fishers and helpers were then instructed to wait in the outreach area until they were called in for the series of presentations. Upon entering the presentation area, fishers and helpers were given housekeeping rules which included a provision regarding asking questions. The fishers were then given an overview of what was in the registration packets that they received when they signed in for registration. The fishers and helpers then received an hour long of presentations and were encouraged to ask questions of each presenter in the outreach room once they had registered. Fishers and helpers were given the opportunity to provide feedback in a comment box and also to meet one-on-one with presenters for more information. Fishers then proceeded to register and obtain their licenses. This process continued every hour between 8:30am and 3pm in St. Thomas and 9am-3pm in St. Croix. Those fishers who did not schedule appointments or attend registration, were required to follow up with DFW and DEE to register later, at which time they received the CCR training module (i.e. presentation, brochure, and DFW handbook) from DPNR staff. Tables 3 and 4 outline the total number of fishers and helpers that participated in the scheduled registration and workshop, in 2013 and 2014, respectively.

In 2013, 100 commercial fishers and 7 helpers were engaged in registration and the workshop in St. Croix, and 92 and 14 in St. Thomas/St. John, respectively; totaling 213 individuals in both districts (Table 3). According to DFW (2013), in 2012 in St. Croix, the total number of commercial fishers that existed was 176 (17 in *sleep status*-not actively fishing) and in St. Thomas/St. John there were 114 (1 in *sleep status*).

²The newspaper announcement (Appendix A) states 40 minutes per presentation. This was a typo that was released which resulted in false advertisements regarding appointment times. Care will be taken in the future to reduce the risk of this issue occurring in the future.

These 2012 numbers represent the total number of fishers registered in 2012 including those that did not register during the annual registration process, and did not attend the fisher workshop that year. Therefore, a comparison of fisher and helper numbers for 2012 versus 2013 is not appropriate. In 2013, 63% of all St. Croix commercial fishers and 81% in St. Thomas/St. John were engaged in the registration and workshop (Table 3). Currently, the number of active helpers is not recorded in the DEE database; however, the steering committee is seeking to record the number of active helpers in the near future.

Overall, of the 291 commercial fishers that exist within the US Virgin Islands, 190 or 66% of these fishers were engaged in the 2014 registration and workshop (Table 4). The steering committee considered 60% engaged to be successful and this percentage was exceeded by 6%. Thus, the registration and workshop is considered to have been successful in engaging and educating commercial fishers. However, the 2014 result for total percentage of existing fishers engaged was 7% lower than the year before (i.e. 73%). There are many confounding factors that could have contributed to this including: changes in population due to closure of the Hovensa oil refinery in February 2012; the transition of full-time fishers to part-time to accommodate an additional source of income, several fishers were away from the USVI for various reasons at the time of registration. Additionally, there are various circumstances in which the number of fishers engaged may have reduced since 2013 due to administrative processes, i.e. licenses may have been undergoing the transfer process from one individual to another, licenses may have been in unregistered or registered sleep status or licenses may have been revoked (Table 4). Consequently, though fewer commercial fishers were engaged in 2014 than in 2013, the 2014 registration workshops were still deemed successful based on 66% of existing fishers being engaged.

Figures 1-2 represent commercial fisher engagement and education during the 2014 registration and workshop process. As noted previously, fishers were given the opportunity to provide comments in a comment box which amounted to two comments for both districts (2 in St. Croix and 0 in St. Thomas/St. John), as follows:

St. Croix (commercial fisher1): *“I would like to say that I am very pleased with all the educational information that is being provided, and it is wonderful to be part of this. The staff was very professional and [curious]; great job to all of you!”*

St. Croix (commercial fisher2): *“Information received here today was very informative. Presenters were excellent...also, make registration last the whole week.”*

	<i>St. Croix</i>	<i>St. Thomas/St. John</i>	Total
No. of Fishers engaged (2013)	100	92	192
No. of Helpers engaged (2013)	7	14	21
		Total No. of Individuals	213
	<i>St. Croix</i>	<i>St. Thomas/St. John</i>	Total
Total No. of Fishers Registered in 2012 (number in sleep status)-this represents the number of fishers registered including those that did not attend the annual registration workshop.	176 (17)	114 (1)	290 (18)
Percentage of Fishers engaged in 2013	63%	81%	73%

Table 3. Number of Fishers and Helpers Engaged in 2013 Registration and Workshop Compared to Total Registered in 2012

	<i>St. Croix</i>	<i>St. Thomas/St. John</i>	Total
No. of Fishers engaged (2014)	93	97	190
No. of Helpers engaged (2014)	9	2	11
		Total No. of Individuals	201
	<i>St. Croix</i>	<i>St. Thomas/St. John</i>	Total
Total No. of Fishers Registered in 2013/2014-this represents the number of fishers registered including those that did not attend the annual registration workshop.	145	117	262
Registered fishers in sleeper status	5	7	12
Unregistered fishers in sleeper status	24	0	24
License Transfers	6	2	8
Pending License Transfers	5	0	5
Total Submitted Transfers	11	2	13
Licenses Revoked	0	1	1
Total number of existing fishers in USVI (Registered/Un-registered/Sleepers/Transfers;not counting revoked license)	174	116	290
Percentage of Existing Fishers engaged in 2014	53%	84%	66%

Table 4. Number of Fishers and Helpers Engaged in 2014 Registration and Workshop Compared to Total Registered in 2013

NOAA
FISHERIES
SERVICE



STX workshops



(a)



(b)



(c)

Participants:
93 commercial fishers
7 helpers

Figure 1. *Some of the Agency and Organization Staff for St. Croix (STX) Workshops.* This figure represents several participating agency staff/workshop facilitators: [from left to right] (a) Juan Cruz of the USVI DPNR Division of Fish and Wildlife; (b) Nadija Packauskas of the Caribbean Oceanographic Restoration and Education Foundation (CORE) STX Chapter; and (c) Scott Crosson of the NMFS Southeast Fisheries Science Center.



Figure 2. *Some of the Agency, Organization Staff and Fisher Participants for St.Thomas (STT) Workshops.* This figure represents several participating agency staff/workshop facilitators and fisher participants: [from left to right] (a) Alexis Sabine and Mekisha George of DFW presenting to fishers in St. Thomas; (b) Officer Carl Jehle of the USCG; (c) a group of fisher participants.

In future project implementations, the primary educational module will consistently be used, i.e. the Commercial Fisher Training and Registration PowerPoint highlighting the importance of accurate and efficient catch reporting, the USVI DFW fisher handbook and the waterproof brochure summary of regulation, though it may evolve as we execute an adaptive approach for implementation of these workshops. In order to maintain flexibility in terms of topics to be covered, on an annual basis, MOES-VI partners will be invited for the opportunity to reach out to fishers on any contemporary issues and management decisions their agency/organization is handling or proposing, respectively.

Limitations, Opportunities for Improvement, and Next Steps

Anecdotally, registration and the workshops have been deemed successful over the past 3 years (2012-2014), by partners and participants, in terms of content and efficiency. The fishers have been overall very receptive to the information and the new process; however, as with any new process there are still some challenges, i.e., keeping with appointment schedule due to late arrivals and walk-ins, technological issues, and limited resources, including staff, computers, and other electronic equipment. We found that the 2012-2014 registration and workshop processes were held up by the lack of equipment, namely picture ID cameras and laptops, and lack of staff. However, in 2014, DFW provided one additional staff member in STX (i.e. 2 DFW staff) and two additional in STT (i.e. 3DFW) which improved registration efficiency for the DFW component of the registration process. DEE staff was lacking in both STX and STT specific to the DEE component of the registration process and lack of equipment still proved to be an issue, specifically, lack of printers and additional ID cameras. Another aspect to consider is the improvement of the new electronic Microsoft Access registration system, which was developed by DFW staff for both DFW permits and DEE permits and licenses. This included building new databases in Microsoft Access (for which DEE holds a license) so that all registration information for DFW and DEE may be stored and utilized during registration and for data reporting. The paper system that is currently in place for registration has proven tedious and time consuming, not to mention costly due to the need to print forms. The process now involves the printing of a registration form, a registration permit, and an ID card. The idea behind the database is to reduce the use of paper and include all information for registration on the fishers' ID cards. In order to do so, DEE (Territorially) is in need of two more laptops, two 1TB hard drives to back up the database, and four electronic signature pads. DEE is working to consolidate their existing databases into one comprehensive database to allow for improved data management and storage overall for both STT and STX. Ideally, with more equipment, and staff, and an improved data management system, the registration process would be more efficient.

Though it was not possible to implement an effectiveness survey during the past three years, in years to come it would be of great interest to have quantifiable data illustrating the effectiveness of this outreach and education effort. NMFS SERO provided support for the revision and translation of outreach materials, e.g. waterproof brochures, and purchase of materials and supplies (e.g. registration packet folders, notepads, pens, paper, etc.) which has improved the quality of the workshop content. There is also a need to determine whether empirically, these fisher workshops have been effective. A tool such as Survey Monkey or the like would be highly appropriate for addressing this data gap and WIFI induced tablets (e.g. IOS or Android) to utilize the program would be ideal to foster efficiency. Funds are being sought through the FY15 NOAA CRCP internal Request for Proposals (RFP) to address these issues.

Effectiveness is difficult to measure in terms of evaluating compliance. One way to accomplish this evaluation would be a review of the quality and rate of return of catch reports being turned in to DFW. At this time, the technical and staff capacity for such a review is lacking to insure this quality assurance and the current mechanism by which the data is received, stored and managed is not conducive to conducting an evaluation. Discussions are underway with local and regional resource managers at this time in regards to improving data collection and fisheries management in the US Caribbean in general. With a move towards island-specific management plans in the near future, now would be the ideal time to reconstruct the data collection and management process in the USVI. Though these plans are island-specific and may require differing information on a variety of species and fishing methods, the mechanisms by which these data are collected, stored, managed and assessed should be the same for ease of analysis and decision making for management are considered on a Territorial scale.

With the current economic climate and cutbacks in the Territory's budget and internal DPNR funding obstacles, the project coordinator had submitted a proposal to the NOAA Coral Reef Conservation Program through the internal FY14 grant that was supported by local and regional project partners. The purpose of this proposal was to seek funding for continued implementation of MOES-VI projects throughout FY14 with a primary focus on implementation of the MOES-VI: Improving Fishing Community Awareness and Compliance project which incorporates the annual commercial fisher registration and workshop. NOAA CRCP has accepted this proposal and is anticipated to award funding in both FY14 and FY15 for the improvement and continuation of the MOES-VI: Improving Fishing Community Awareness and Compliance project. The following tasks will be conducted under this award:

- Building workshop content quality to ensure continued and improved success of the commercial fisher annual registration through providing support to revise/reproduce, develop and translate new and existing materials and purchase of registration packet materials (e.g. pens, paper, notepads, folders, etc...). These materials will be useful for both the registration process and CRCP coordinated fisher workshops that focus on improving awareness of the significance of reporting accurate catch data for fisheries management, especially annual catch limits.
- The fisher workshops will be evaluated by a contractor, specifically Blue Earth Consultants, LLC (www.blueearthconsultants.com), with guidance and support from the project steering committee and the DFW and Southeast Fisheries Science Center (SEFSC); this will be done through development of an adaptive evaluation tool for fishers to take part in in order to evaluate improvement of awareness on workshop topics (presented by several resource management agencies) and fisher perspectives on the registration process as well as enforcement issues.

A programmatic structure for the implementation of the Improving Fishing Community Awareness and Compliance project would be in the best interest of all partners. However, in the absence of such a structure, consistency in planning, coordination and implementation of the project should be maintained. The process of planning and implementation relies on coordination and facilitation by the NOAA CRCP USVI Fisheries Liaison. The fisheries liaison works closely with the steering committee to plan and coordinate tasks and activities that amount to implementation of registration. Currently, the fisheries liaison is committed to this role; however, this may not be sustainable in that the current lack of jurisdictional capacity could prove detrimental to the project in the case that the fisheries liaison is not able to serve as coordinator and facilitator in the future. Also, it would be well within the best interest of the commercial fishing community to invite two members of the community to serve on the steering committee for this project to ensure fishers' perspectives are represented in the planning, coordination and implementation of the annual workshops. Furthermore, need for improvements through building technical and staff capacity is evident through limitations and challenges experienced over the last three years.

To allow for the annual workshop and registration process to run more efficiently and to improve the experience for fishers and facilitators, equipment, staff capacity and data collection gaps need to be filled. Receiving the NOAA CRCP FY14-15 award will aid in implementing the MOES-VI: Improving Fishing Community Awareness and Compliance project in 2015 and 2016; however, a more sustainable financing and strategic plan needs to be developed to ensure that this project will be long-lived. The following are recommendations for continuous implementation of this project over the next few years:

- Over the past two years, through collaborative efforts between local and regional partners and a team of dedicated contractors (funded by the NOAA Coral Reef Conservation Program), a comprehensive Communications, Outreach and Education (C,O&E) report was developed.³ This report provides a description of existing marine outreach and education programs and implementation gaps in the US Virgin Islands (USVI) as well as a series of action recommendations to improve communication efforts, summarizing the information collected for the Strategizing for Improved Outreach, Education and Communication Pertaining to USVI Marine and Fisheries Management and Conservation Project, which is part of the larger Marine Outreach and Education USVI Style (MOES-VI) effort. The overall goal for this project was to identify and describe the current state of marine outreach and education in the USVI, identify gaps and challenges in current efforts, and provide recommendations and objectives to fill identified needs. The primary inputs for this project were related reports and studies, as well as the observations, experiences, and opinions offered by those people most closely associated with marine outreach and education in the USVI. This plan is for anyone interested in past or future communications, outreach and education efforts regarding the marine environment and its resources in the USVI. The plan, executive summary and appendices may be accessed at: http://www.coris.noaa.gov/activities/moes_vi_plan.
- Every year, the USVI Department of Planning and Natural Resources Coastal Zone Management Division submits a proposal for funding to the CRCP for the Territorial Cooperative Agreement Grants opportunity. Funds provided through this agreement are used to sustain the Territorial Coral Reef Initiative. These funds are used for a range of activities and programs to support coral reef management in the Territory. It would be appropriate for DPNR to consider funding in support of MOES-VI initiative under this agreement, including the Improving Fishing Community Awareness and Compliance project. This would provide the Territory with a sense of ownership in the process and potentially provide the motivation and momentum needed to create a programmatic structure for MOES-VI.
- Other grant or funding opportunities provided by governmental and non-governmental entities should be considered and applied for to continue support of the Improving Fishing Community Awareness and Compliance project.

Future implementation of the MOES-VI Improving Fishing Community Awareness and Compliance project while require increased funding, staff and technical capacity, firm commitment from all partners, and a well-defined systemic structure for coordination and implementation accounting for uncertainty and lack of jurisdictional capacity.

³**Citation:** NOAA CRCP (2014). Marine Outreach and Education U.S. Virgin Islands Style Initiative: Strategizing For Improved Outreach, Education and Communication Pertaining to USVI Marine and Fisheries Management and Conservation, U.S. Virgin Islands. Final Report. Prepared by AECOM, Jenn Travis, and Bob Trumble. Christiansted, St. Croix.

Appendix A-Newspaper Advertisement



GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES

-----0-----

DEPARTMENT OF PLANNING AND NATURAL RESOURCES

No. 45 Estate Mars Hill, Frederiksted
St. Croix, Virgin Islands 00840

CONTACT: Jamal Nielsen, Media Relations Coordinator

TEL: (340) 773-1082

FAX: (340) 713-2430

jamal.nielsen@dpr.gov.vi

FOR IMMEDIATE RELEASE

Monday, April 14, 2014

DPNR ANNOUNCES BOATING REGISTRATION AND COMMERCIAL FISHERS' LICENSING

The Department of Planning and Natural Resources advises the public that all boating registration and commercial fishers' licensing for 2014-2015 will be conducted as follows [Please note the new license registration protocol]:

- St. Thomas/St. John- Division of Environmental Enforcement, Cyril E. King Airport from 9am-12pm and 1-3:30pm.
 - Recreational boat & mooring registration - June 2 to June 30, 2014
 - Commercial fishers' licensing and boat registration July 14 to July 16, 2014

Commercial fishers are required to call the Division of Fish and Wildlife (DFW) at 340-775-6762 for an appointment slot. Please be advised that fishers are to receive a collaborative presentation from DFW, NOAA Coral Reef Conservation Program, NOAA Fisheries and US Coast Guard which may require 40 minutes prior to registration.

Fishermen on the island of St. John will be required to travel to Department of Planning and Natural Resources on St. Thomas.

- St. Croix- Division of Environmental Enforcement, 6003 Estate Anna's Hope, 9 a.m.-12pm and 1-3:30 p.m.
 - Recreational boat & mooring registration - June 2 to June 30, 2014

- Commercial fishers' licensing and boat registration - July 7 to July 9, 2014

Commercial fishers are required to call the Division of Fish and Wildlife at 340-772-

1955 for an appointment slot. Please be advised that fishers are to receive a

collaborative presentation from DFW, NOAA Coral Reef Conservation Program, NOAA Fisheries and US Coast Guard which may require 40 minutes prior to registration. **Appointments in both jurisdictions range between 9am-12pm and 1-2:30pm, with limited slots per appointment time. Please call early to secure an appointment time and confirm how many helpers you intend to have accompany you.**

Note: Presentations must be received during the registration process. If you are not able to register during the allotted time frame, late registration will still entail the presentation component; thus, it is recommended that you register during the allotted times in July.

In order to be eligible for registration, commercial fishers must come prepared with all necessary documents, including commercial fishing licenses and helper cards, at the time scheduled for their appointment and be up to date on submission of commercial catch report forms.

Contact the Division of Fish & Wildlife at 340-775-6762 on St. Thomas or 340-772-1955 on St. Croix at 45 Mars Hill, Frederiksted, to schedule appointments and for further information.

Appendix B- Notice of Corrections

Notice of Corrections: A Measurement Guide for Regulated Fishes of the USVI-July 2013

Fish Identification Guide:

Incorrect

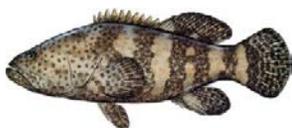


Nassau Grouper
Epinephelus striatus
Endangered Species
Harvest prohibited, NO Possession

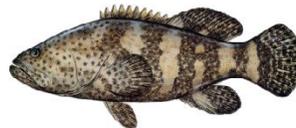
Correct



Nassau Grouper
Epinephelus striatus
IUCN Species of Concern
Harvest prohibited, NO Possession, Undergoing a status review



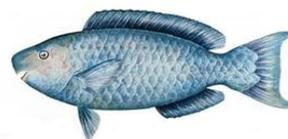
Goliath Grouper
Epinephelus itajara
Endangered Species
Harvest prohibited, NO Possession



Goliath Grouper
Epinephelus itajara
IUCN Species of Concern
Harvest prohibited, NO Possession



Blue Parrotfish
Scarus coeruleus
Harvest prohibited, NO Possession



Blue Parrotfish
Scarus coeruleus
IUCN Species of Concern
Harvest prohibited, NO Possession



Rainbow Parrotfish
Scarus guacamaia
Harvest prohibited, NO Possession



Rainbow Parrotfish
Scarus guacamaia
IUCN Species of Concern
Harvest prohibited, NO Possession



Midnight Parrotfish
Scarus coelestinus
Harvest prohibited, NO Possession



Midnight Parrotfish
Scarus coelestinus
IUCN Species of Concern
Harvest prohibited, NO Possession

This notice of corrections is meant to accompany the CCR training module's water proof brochure: A Measurement Guide for Regulated Fishes of the USVI-July 2013, which is available upon request. Please forward requests to Lia.Ortiz@noaa.gov for a copy of the brochure.

Appendix C-Presentations



*Commercial Fisher Training & License
Registration*

2014-2015



Commercial Catch Report Forms (CCRs)

- The Division of Fish & Wildlife monitors the health of the Fishery resources through the use of CCRs.

- Accurate CCRs are essential to Fishery Management
 - Validity of this information depends upon cooperation of all commercial fishers.
 - Inaccurate catch reports provides misleading data that may generate undue concern over a fishery resource.

USVI COMMERCIAL CATCH REPORT FORM - ST. CROIX

Version: July, 2013
LOOP #1-6262 (BACK) ONLY

A SEPARATE FORM MUST BE COMPLETED FOR EACH TRIP OR MONTH OF NO FISHING

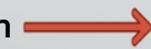
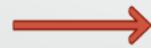
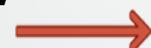
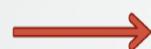
LAST NAME: _____ LANDED DATE: []/[]/[] Trip Ticket # _____
 FIRST NAME: _____ OR DID NOT FISH FOR MONTH OF: []/[]/[]
 Vessel #: _____ License # _____ # of Helpers: _____ Trip Landing Site (Town/Estate): _____ Total Trip Pounds: _____
 HHS Species Permit #: _____ Partner #1 License #: _____ Partner #2 License #: _____ Total # Traps in Water: _____
 Did other Permit Holders Split Catch: No Yes Fishing Mainly at Night: No Yes
 Paying Customers Aboard: No Yes Fished 3 or more miles from Shore: No Yes

HOOK & LINE / ROD & REEL		LOBSTER TRAPS		NETS		SPEAR OR BY HAND	
Hard <input type="checkbox"/> Power/Battery <input type="checkbox"/> Bury <input type="checkbox"/>	# of Lines _____	# of traps _____	Surface Cast <input type="checkbox"/> Mesh <input type="checkbox"/>	Surface Cast <input type="checkbox"/> Mesh <input type="checkbox"/>	Scuba <input type="checkbox"/> Free Diving <input type="checkbox"/>	Scuba <input type="checkbox"/> Free Diving <input type="checkbox"/>	Scuba <input type="checkbox"/> Free Diving <input type="checkbox"/>
Hours Fished _____	Bottom Depth _____	Hours Fished _____	Hours Fished _____	Hours Fished _____	Bottom Depth _____	Hours Fished _____	Bottom Depth _____
Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____	Fallowline Feet _____

HOOK & LINE SPECIES	WHOLE POUNDS	GUTTED POUNDS	TRAP SPECIES	WHOLE POUNDS	GUTTED POUNDS	NET SPECIES	WHOLE POUNDS	GUTTED POUNDS	SPEAR OR BY HAND	WHOLE POUNDS	GUTTED POUNDS
SEOFISHES			LOBSTERS			BLENDER/PARROT FISHES			LOBSTERS & MOLLUSCS		
Bluefish (King)			Small Lobster			Parrotfish			Blue Crab		
Clam (Red Head)			Banded Clam			Groupers			Groupers		
Trout			Small (Red Head)			Wahoo (Yellow)			Clam (Red Head)		
Shrimp			Shrimp			Shrimp			Shrimp		
Snappers			Large (Red Head)			Red Snapper			Shrimp		
Groupers			Small			Groupers			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		
Shrimp			Large			Shrimp			Shrimp		
Shrimp			Small			Shrimp			Shrimp		

Know Your CCR

- Boater Registration number
- Number provided to YOU by the DFW
- Required for Pelagic fishing in Federal water, The permit is issued to the fishing vessel, so it will cover all anglers onboard.
at <https://hmspermits.noaa.gov/>
- If two licensed Commercial fishers fish together, enter partner's information in this section.



LAST NAME : _____

FIRST NAME : _____

Vessel #:

--	--	--	--	--	--	--	--	--	--

License #:

--	--	--	--	--	--	--	--

 # of Helpers:

--	--

HMS Species Permit #:

--	--	--	--	--	--	--	--	--	--

Did other Permit Holders Split Catch: No Yes

Partner #1

--	--	--	--	--	--	--	--

License #: _____

Name (last,first): _____

Know Your CCR

- Day that Fishing Trip Occurred →
- Fill out this section only if you have not Fished for that month.
(Submit **1** sheet indicating this) →
- Location where boat was launched and picked up. (Altona Lagoon, Molasses Pier, Frederiksted pier, etc...) →

LANDED
DATE:

<input type="text"/>					
M M		D D		Y Y	

OR

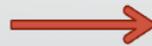
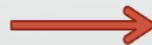
DID NOT FISH
FOR MONTH OF:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
M M		Y Y	

Trip Landing Site:
(Town/Estate)

Know your CCR

- Number of Fish/ Lobster pots currently in the water.
- If DFW staff inspected your catch
- Trip occurred at night
- Are you running Charters on the Vessel?
- If you fish 3 or more miles from shore.



Trip	
Ticket #	
DFW USE ONLY	
Total Trip Pounds:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Total # Traps in Water:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Trip Port Sampled:	<input type="radio"/> No <input type="radio"/> Yes
Fishing Mainly at Night:	<input type="radio"/> No <input type="radio"/> Yes
Paying Customers Aboard:	<input type="radio"/> No <input type="radio"/> Yes
Fished 3 or more miles from Shore:	<input type="radio"/> No <input type="radio"/> Yes

Know your CCR

HOOK & LINE / ROD & REEL

Hand Power/bandit Buoy

Number of lines used → # Lines Hooks / Line

FAD fished name

Total hours of Fishing effort → Hours Fished Area 1 Fished

Water depth in area fished → Bottom Depth Area 1 Fished

Fathoms Feet

Area 1 Fished

Area 1 Fished

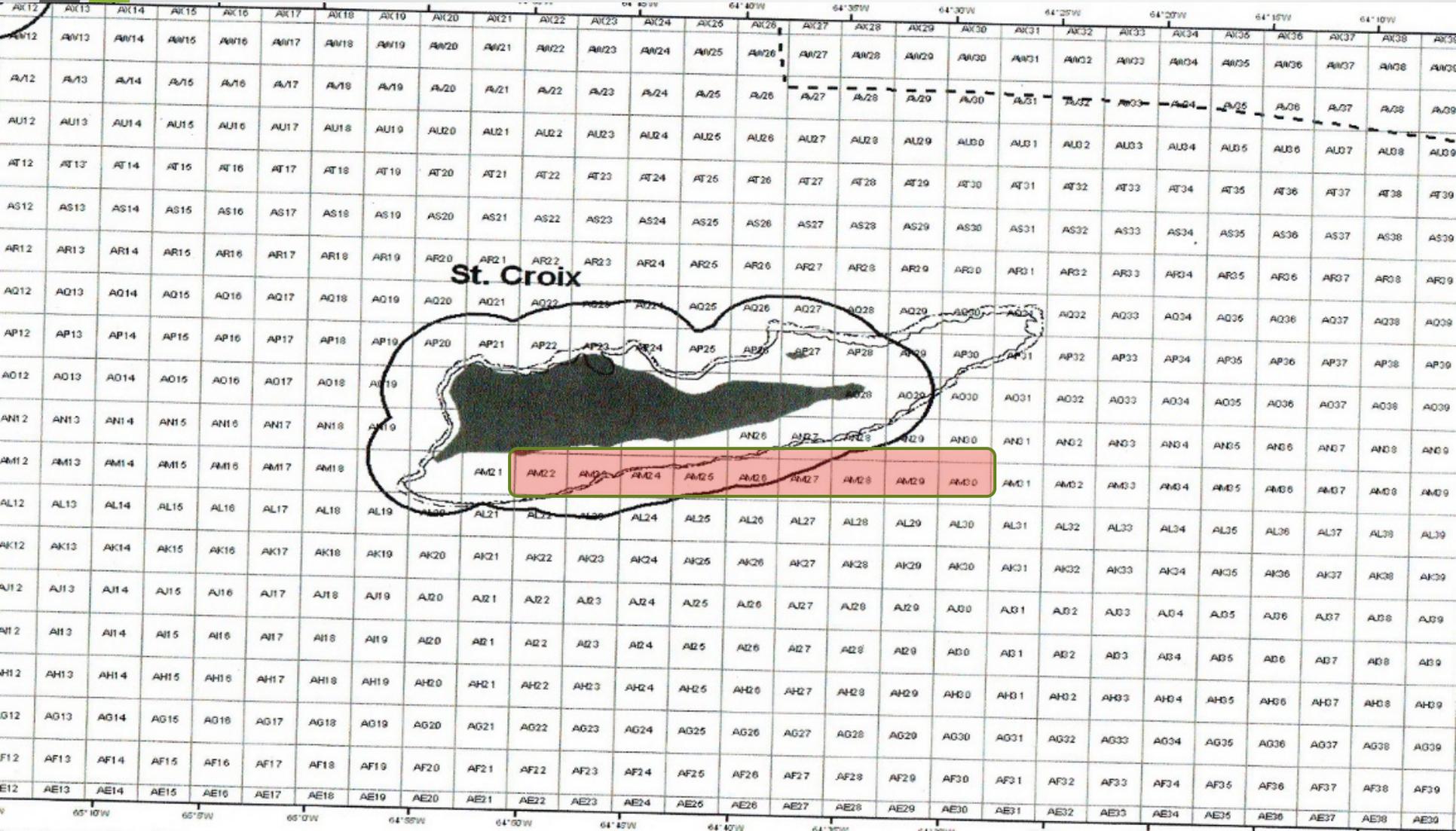
Choose Appropriate Method ←

How many hooks on each line ←

Will no longer be filled out

Identify measurement used, please be consistent

Know your Area fished



Know Your CCR

		TRAPS					
		<u>Lobster Trap</u>		<u>Fish Traps</u>			
Traps pulled on Trip	→	# of trap	<input type="text"/>	<input type="text"/>	# of trap	<input type="text"/>	<input type="text"/>
		Hauls	<input type="text"/>	<input type="text"/>	Hauls	<input type="text"/>	<input type="text"/>
# of Days Traps Soaked for	→	Days	<input type="text"/>	<input type="text"/>	Days	<input type="text"/>	<input type="text"/>
		Soaked	<input type="text"/>	<input type="text"/>	Soaked	<input type="text"/>	<input type="text"/>
# of Hours Trap Soaked for	→	Hours	<input type="text"/>	<input type="text"/>	Hours	<input type="text"/>	<input type="text"/>
		Soaked	<input type="text"/>	<input type="text"/>	Soaked	<input type="text"/>	<input type="text"/>

Know Your CCR

Please choose appropriate net type

Surface Gill Seine Cast

Please state proper length of net
(example 8 feet)

Length

--	--

Mesh
(In)

--	--

Fathoms

Feet

#.

Nets

--	--

State size mesh
(½ in ... etc.)

State how many
nets used

Know Your CCR

Choose appropriate method →

of Divers in the water →

Hours Spent **JUST** Diving →

SPEAR or BY HAND			
	Scuba		Free Diving
#. Divers	<input type="text"/>	<input type="text"/>	#. Dives <input type="text"/>
Hours Diving	<input type="text"/>	<input type="text"/>	<input type="text"/>

of Times did divers entered the water

Know Your CCR

HOOK & LINE SPECIES	WHOLE POUNDS	GUTTED POUNDS	TRAP SPECIES	WHOLE POUNDS	GUTTED POUNDS	NET SPECIES	WHOLE POUNDS	GUTTED POUNDS	SPEAR OR BY HAND	WHOLE POUNDS	GUTTED POUNDS
GROUPERS			LOBSTERS			BLUEFISH (PARROTFISHES)			LOBSTERS & MOLLUSCKS		
Butterfish (Coney)			Spiny Lobster			Princess			Spiny Lobster		
Cabrilla (Red Hind)			GROUPERS			Queen			Conch		
Misty			Butterfish (Coney)			Redband			Whelk		
Tiger			Cabrilla (Red Hind)			Red Belly (Stoplight)			GROUPERS		
Yellowfin			SNAPPERS			Redfin			Butterfish (Coney)		
SNAPPERS			Blackfin			Redtail			Cabrilla (Red Hind)		
Blackfin			Dogtooth (Schoolmaster)			BAIT AND OTHERS			Yellowfin		
Cardinal			Lane			Ballyhoo			SNAPPERS		
Dogtooth (Schoolmaster)			Mahogany			Bigeye Scad			Mangrove (Gray)		
Lane			Silk			JACKS			Dogtooth (Schoolmaster)		
Queen			Vermillion			Barjack			Yellowtail		
			Virgin (Mutton)			SURGONFISHES			Virgin (Mutton)		
						Brown Doctor (Doctorfish)					

What Are Annual Catch Limits (ACLs)?

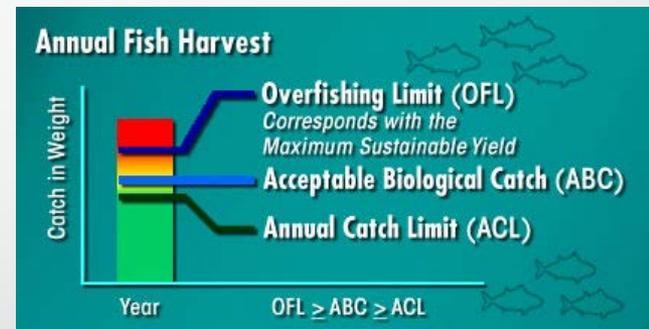
- An ACL is the amount of a fish that can be taken by fishermen over a period of one year.
- ACLs may be set for Puerto Rico, St. Croix, and St. Thomas/St. John.
- An ACL can apply to a single species of fish or a group of species



What are Annual Catch Limits (ACLs)?

Contd.

- Fishery scientists and managers use Commercial Catch Report data collected by **YOU** to determine the maximum amount of fish that can be caught without harming a fish stock



Annual Catch Limits Examples

	St. Croix	St. Thomas/ St. John
Species	50 CFR 622.49 (c)(2):	50 CFR 622.49 (c)(3):
Parrotfishes	240,000 lb (108,863 kg)	42,500 lb (19,278 kg)
Snappers	102,946 lb (46,696 kg)	133,775 lb (60,679 kg)
Groupers	30,435 lb (13,805 kg)	51,849 lb (23,518 kg)
Angelfish	305 lb (138 kg)	7,897 lb (3,582 kg)
Boxfish	8,433 lb (3,825 kg)	27,880 lb (12,646 kg)
Goatfishes	3,766 lb (1,708 kg)	320 lb (145 kg)

Trip Interview Program (Tip)

- Estimates of the age distribution of fish in the population and how the distribution has changed over time is critical information for the assessment of the population.
- Like the other statistics gathering programs, this one is also a joint or cooperative effort with the state fishery agencies such as the Division of Fish & Wildlife.



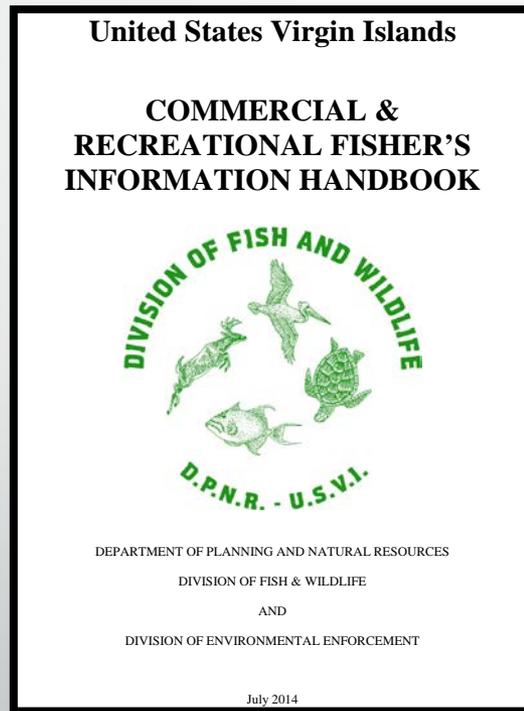
Trip Interview Program (Tip) contd.

The Trip Interview Program provides:

- size frequency data
- age at length data
- catch per unit effort data
- information on the composition of the species being caught and landed



2014 Commercial & Recreational Fisher's Handbook



Fisher Measurement Brochure

Conch Regulations



No Take of Conch

Close Season: Jun. 1- Oct. 31

Minimum size of **9 in.** shell length from the spire to the distal end, or **3/8 in.** lip thickness

200 conch per day per **registered commercial fishing vessel.**

6 conch per day per **recreational (personal use) fisher;** not to exceed 24 per boat per day.

Net Restrictions

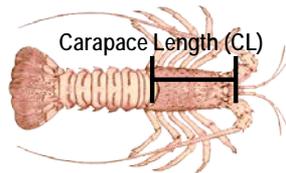
Allowed
Cast nets
Seine nets

Not Allowed
Drag net
Trap net
Gill net
Beach seine
Surround net



*V.I.C., Title 12, Chapter 9A, §321.
Haul seines must have a mesh size greater than 1 1/2 inch stretch mesh. Seines for catching baitfish must have a mesh size greater than 1 1/4 inch stretch mesh.

Spiny & Slipper Lobster Regulations



It is illegal to take lobster if:
It is less than 3 1/2 in. CL

It is carrying or has been stripped of its eggs

It has been harvested by any method other than by hand

Whelk Regulations



No Take of Whelk

•Closed Season: April 1 –Sept. 30

•Must be landed whole in shell

•Shell must have a diameter of 2 & 7/16 in.

Agency Websites

DPNR –<http://www.dpnr.gov.vi>

DFW - <http://www.dpnr.gov.vi>

NOAA CRCP- coralreef.noaa.gov

Helpful Numbers

Police or Fire Emergency 911
Coast Guard STT 340-776-3497
Coast Guard PR 787-289-2041 (CH 16)
VI National Park (NPS) 340-776-6201, ext. 254

STX NPS 340-773-1460

DFW STT 340-775-6762

DFW STX 340-773-1082

DPNR CZM 340-718-3367

DPNR Enforcement STT

340-774-3320

DPNR Enforcement STX

340-773-5774

A Measurement Guide for Regulated Fishes of the USVI

July 2013



Marine Outreach and Education
USVI Style:
Fish For the Future



12

13

14

15

16

17

18

19

20

21

22

Acknowledgments

USVI Division of Fish and Wildlife dedicated staff.

*Lia A. Ortiz, NOAA Coral Reef Conservation Program USVI
Fisheries Liaison*

ST. CROIX / S.T THOMAS COAST GUARD AUTHORITY TO EXAMINE FISHING VESSELS

46 USC 4501 – 4508

46 CFR SUBPART C: Parts 25, 28

Coast Guard and Maritime Transportation Act of
2012

MANDATORY inspections will go into effect October 15, 2015 to ensure compliance with all regulations. Dockside inspections are currently voluntary.

Dockside Examination Process

Pre-examination work sheets are available for pick up at the RIO ST Croix office. Vessel representatives are encouraged to review these closely, and contact the office with any questions.

After review a date can be scheduled for an on-site inspection of the vessel at a set location. (Private residences are not acceptable locations on ST. Croix).

Average examinations take approximately 30 minutes to an hour to complete.

These exams do not have monetary fines or enforcement for discrepancies.

The only time penalties may occur is when the vessel does not have required equipment available for a coast guard boarding team while engaged in fishing activities. **This may include termination of the operations.**

RIO St. Croix

6081 Castle Coakley

Christiansted, VI 00820

340-772-5557

MSD St. Thomas

1 King Wharf Waterfront,

St. Thomas, VI 00804

340-776-3497

More information online at: **www.FishSafe.info**

**Pre – Examination work sheets are
available today.**

Appendix D- CORE Lionfish Survey (STX)

Appendix D- CORE Lionfish Survey (STX)

Fisher Registration Report

Surveys

English- 74

Spanish -20

Total participants- 94

Questions/results

Lionfish Survey (English and Spanish results)

Type of fishermen: line and hook (51) Spear (35) Trap (25) other (nets, etc.) (19)

Do you see many Lionfish? Yes 51 No 31 Sometimes 3

Where? : North shore (24) South shore (31) West (12) other (13)

Kill lionfish: yes (53) no (27)

Sell lionfish: yes (15) no (63)

What keeps you from taking lionfish when you see them?

No commercial market (31)

Too dangerous 30

Poisonous 27

Not enough personal value in killing them (19)

No containers to keep them safely 18

Do not see them or don't dive 4

Do not catch them ever 2

It feeds other bottom fish (eel, shark, etc.) Handwritten answer

Too many MPA's so it makes no sense to kill them when they have built in sanctuaries provided by govt.
3- Handwritten answer

Other: 9

What would enable you to take lionfish when you see them?

Reserve reef for future generations/improve fish stocks 53

Guaranteed market 51

More people knowing they could eat them 37

More people knowing they are not poisonous 35

Free air fills for tails or turned in fish 37

Public recognition for helping with lionfish issue, certificate, plaque, acknowledgement 26

Having safety equipment provided free 2

Money for fish a bounty system 2 (written in)

Nothing would make me take them. 1

Quotes

- "I caught lionfish on my bank line at 800 ft. and 1500 ft. once"
- "3lbs is what I catch them in deep water"
- "I pull them from traps at 300 ft."
- "When I sue the right bait, my trap is full, full of lionfish! "
- "Catching in traps"
- "Too many closed areas (national parks)" "why does the government provide free breeding grounds for lionfish? "
- "we are the only predators"
- "need market"
- "no repeat buyers"
- "too many laws"
- "get rid of turtles to get rid of sharks"
- "have to get a permit for sharks"
- "How do you know it won't work if you don't try it?"
- "closed entire east end and now we are suffering and the lionfish are probably taking over"
- "fishermen are getting exterminated"
- "prevent locals from feeding families"
- "teach kids to fish so they don't become criminals"
- "lots (of lionfish) in traps"
- "not paying me to take them out so it isn't worth it"
- "the government needs to wake up"
- "Thank you for being here! You make it so my grandson will have a reef and nobody thanking you. Thank you from me and my family!"
- "My friend cut his arm open because we thought he was going to die from a lionfish sting. We sucked the blood and hurried home. He ended up with a staph infection that almost took his arm off from using the dirty knife. I wish I knew about them before."
- "why didn't the government tell us how to handle them"
- "what is DPNR using the money for because we never see it"
- "My children know you from lionfish lady. They tell us the whole story. "

- "We need more derbies that are the right time so we can be in it."
- "we want you to teach us how to catch them"
- "I see many moray dead in my traps with lionfish in their mouths."
- "I got CTX 15 times. I no selling poison to my customers. I not selling lionfish. "
- "we got Ctx and 5 people ended up in the ER from a cookout with a blue runner"
- "How we know Lionfish don't have sickness? "
- "How come we can't get free air?"
- "I seen a shark ate a lionfish alive right in from of me. "
- "people telling me sharks have died from lionfish"
- "I seen my First tiger shark by Kramer's Park eating a turtle "
-

Comments written on surveys

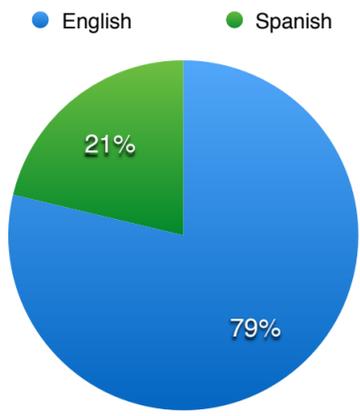
- Very hard to sell lionfish because people think they are poisonous
- Fishermen do not want to put traps where lionfish are
- Question: what kind of help will CORE give fishermen
- There are a lot of lionfish on the south side
- (MPA's is the problem) they need to understand that fishermen need access to certain areas to kill lionfish
- Solutions: Get an agency to open up space to pay \$2 per lionfish daily, bring natural predators of lionfish
- Use of lionfish as bait in traps
- Local and federal should make sanctuaries to breed
- The Buccaneer cleans the beach from lionfish other resorts do it too to keep customers
- Moray eels are dead from lionfish
- Lionfish are the biggest threat to the marine environment why is the govt not doing anything to stop them. Why is it only volunteers?
- Treat the threat first then preserve
- Lionfish at Hess are all over

Table 1

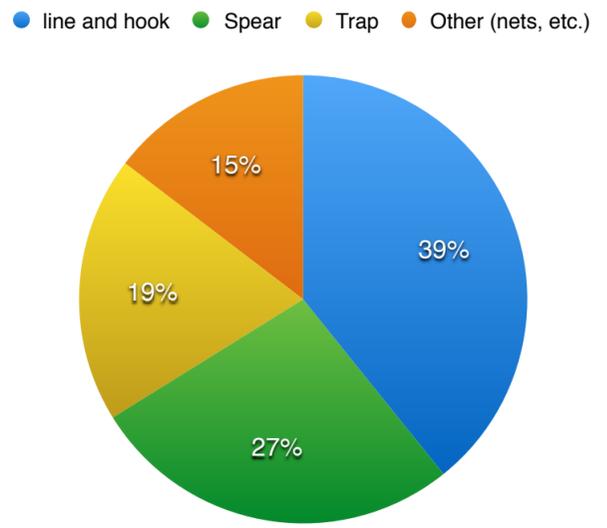
Surveys	
English	74
Spanish	20
Type of fishermen	
line and hook	51
Spear	35
Trap	25
Other (nets, etc.)	19
Do you see many Lionfish?	
Yes	51
No	31
Sometimes	3
Where	
Northshore	24
Southshore	31
West	12
Other	13
Kill lionfish	
Yes	53
No	27
Sell lionfish	
Yes	15
No	63
What keeps you from taking lionfish when you see them	
no commercial market	31
Too dangerous	30
Poisonous	27
Not enough personal value in killing them	19
No containers to keep them safely	18
Others	19
What would enable you to take lionfish when you see them?	
Reserve reef for future generations/improve fish stocks	53
Guaranteed market	51
More people knowing the y could eat them	37
More people knowing they are not poisonous	35
Free air fills for tails or turned in fish	37
Public recognition for helping with lionfish issue, certificate, plaque, acknowledgement	26
Others	5

N = 94

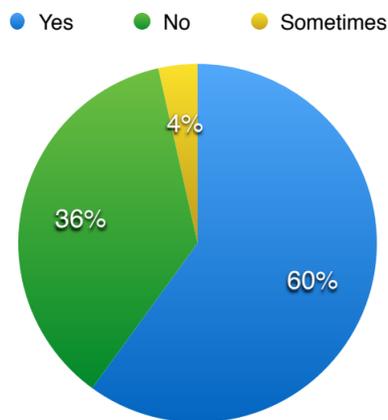
Surveys



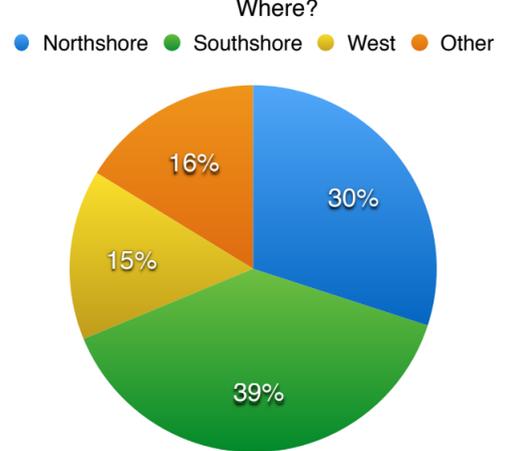
Type of fishermen



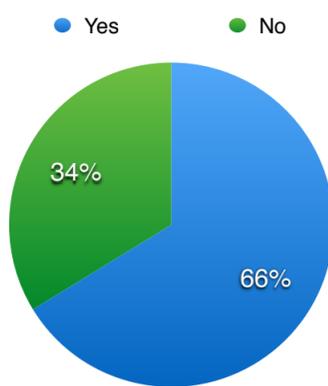
Do you see many lionfish?



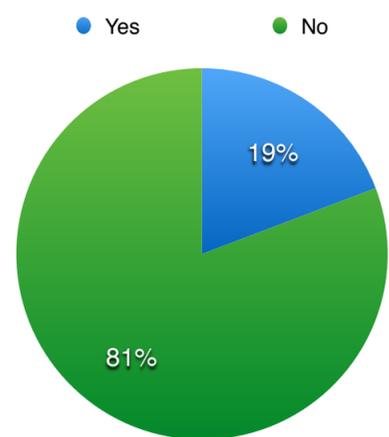
Where?



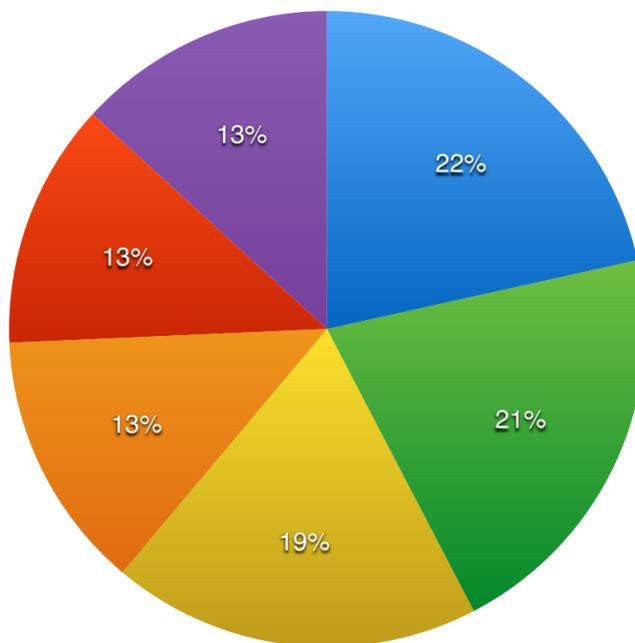
Kill lionfish?



Sell lionfish?



What keeps you from taking lionfish when you see them?



What would enable you to take lionfish when you see them?

