# SUPPORTING STATEMENT <br> CREEL SURVEY OF PRIVATE BOAT RECREATIONAL FISHING IN THE U.S. VIRGIN ISLANDS <br> OMB CONTROL NO. 0648-XXXX 

## A. JUSTIFICATION

## 1. Explain the circumstances that make the collection of information necessary.

This request is for a new information collection to benefit local fishery managers in the United States (U.S.) Virgin Islands (USVI). The National Marine Fisheries Service (NMFS) proposes to collect socio-economic data on boat-based, non-commercial fishing. Up-to-date socio-economic data is needed to support the Agency's conservation and management goals, to strengthen and improve fishery management decision-making, and to satisfy legal mandates under the Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Regulatory Flexibility Act (RFA), the Endangered Species Act, and the National Environmental Policy Act (NEPA), Executive Order 12866 (EO 12866), and other pertinent statutes. This data collection also supports the Coral Reef Conservation Act (CRCA) (16 U.S.C. 6401 et seq).
2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

## General Overview

This data collection request involves gathering catch, fishing effort and socioeconomic information from one group: private-boat, recreational fishers on St. Croix, St. Thomas/St, John, USVI. The catch information includes fishing activity, species caught, number of fish or other species caught, and the fisher's (planned) disposition of the catch. The demographic information includes birth year, location of residence and place of birth. Finally, the dependency information includes the fisher's motivation for fishing, fishing activity and fish consumption for the household, as well as employment and income.

Who will use this information?
In general, the purpose of this research project is to inform natural resource managers in the USVI, those responsible for management of coral reef ecosystems as well as fisheries, about boat-based, non-commercial fishing activity in the USVI. This one-time, voluntary survey will be used to collect information on:

1) catch rate;
2) number, length and species of fish that fishers are catching;
3) demographic profiles of persons who engage in private boat, recreational fishing
on the islands;
4) nature of household dependence on non-commercial fishing by persons who engage
in boat-based fishing; and
5) fishing effort.

Data for purposes 1-4 will be collected via the present survey using in-person interviews. Data to calculate fishing effort will be collected independently via fisher counts.

## How frequently will this information be used?

This one-time collection will last for one twelve-month period. Data and derived products will be provided to territorial resource managers at the conclusion of the project period. It is anticipated that data and derived products will be used by territorial resource managers on an as-needed basis.

## For what purpose will the information be used?

Directly, information provided as a result of this data collection will be used by resource managers in the USVI and CRCP to better understand the nature of private boat, recreational fishing on St. Croix, St. Thomas and St. John. Information could be used by Territorial resource managers or CRCP to inform coral reef ecosystem management plans or programs, outreach/education activities, or Territorial policy related to the management of coral reef ecosystems or fisheries.

## Summary of Survey Questions:

## Site and Observed Information

Questions 1 to 6 will be completed by the surveyor, but without input from the fisher. The first 5 of these 6 questions will be used for administrative purposes. Question 6 will be recorded based on surveyor observation and used to record demographic information on fishers.

## Catch Questions

Questions 7 to 16 are designed to obtain information on the fishers' fishing activity patterns, as well as to get detailed information on catch. Questions in this section were designed to conform to other intercept surveys being conducted in the U.S. Caribbean and elsewhere in the United States related to recreational fishing. With the exception of questions 7 through 10, all of the questions in the section were modeled from catch-oriented questions included on intercept surveys used by the Center for Coastal Monitoring and Assessment at the National Ocean Service (NOS) and the National Oceanic and Atmospheric Administration (NOAA) NMFS Marine Recreational Information Program (MRIP). The specific survey forms consulted are:

1. ST. CROIX U.S.V.I. SHORE-BASED NON-COMMERCIAL FISHING SURVEY - OMB NO. 0648-0671 (EXP. 06/30/16)
2. 2008 MRFSS INTERCEPT SURVEY - Region 11, Puerto Rico (Macro Int.,

2/6/2008) OMB NO. 0648-0052 (EXP. 9/30/08);
3. 2009 INTERCEPT SURVEY - Atlantic (Macro International 2/9/2009) OMB NO. 0648-0052 (EXP. 4/30/2011);
4. 2013 ACCESS-POINT ANGLER INTERCEPT SURVEY - Atlantic.

Below is a summary of the purpose of each question or set of questions.
Question 7: Will you be reporting today's catch on a commercial catch report or trip ticket form?

This question is included as a screening question. Persons who answer "yes" to this question will not be interviewed. For this survey, we only want to interview non-commercial fishers because there is presently no program or mechanism in place in the territory to collect information about catch for this group. Conversely, persons who possess a commercial fishing permit in the USVI report their catch on a commercial catch report or trip ticket form ${ }^{1}$. Therefore, collection of catch information for this group would be duplicative of current monitoring activities. In the USVI, local resource managers indicate that commercial fishers are known to use boat ramps to access the fishery. Thus, there exists the possibility that commercial fishermen could be approached by the surveyor for inclusion in this study. Adding this question as a screening mechanism will allow us to exclude this group of commercial fishers from the study.

Question 8: What is the length of the boat you were fishing from?
Question 9: How many engines does the boat you were fishing from have?
Question 10: What is the combined horsepower of the engine(s) on the boat you were fishing from?

This sequence of questions will facilitate the characterization of the vessels used in this fishery and will also help to standardize catch rate to account for a potential influence of vessel.

Question 11: What type of gear did you primarily use today?
This question is included to document the type of gear that the fisher used during the fishing trip. This information will be used to generally characterize the activity patterns of boat ramp-based, non-commercial fishers.

Question 12: Were you fishing for any particular kinds of fish today? If yes, what kinds?
This question is included to document the type of fish that a fisher hoped to catch during his or her fishing trip. This information will be used to characterize the activity patterns of boat rampbased, non-commercial fishers. Collection of this information will also allow researchers to compare target species to actual species caught.

Question 13: Did you catch any fish while you were fishing that I might be able to look at?
1 USVI Department of Planning and Natural Resources, July 2012. Commercial \& Recreational Fisher's Informational Handbook. Division of Fish \& Wildlife and Division of Environmental Enforcement. pp. 3-4.

Question 14: How many fishers, including yourself, have their catch here?
Questions 13 and 14 are screening questions that will be used to determine if the fisher has catch available for inspection by the surveyor. If the fisher responds in the affirmative to Question 13, then the surveyor will continue with questions regarding available catch. If the fisher responds in the negative to Question 13, then the surveyor will proceed to Question 16, which is focused on catch that is not available for inspection. Question 14 will be used to determine if the catch that is available for inspection belongs only to the fisher being surveyed, or if a portion of the catch belongs to other persons in a fishing party. Question 14 will be used to estimate the average catch per person for the fishing party based on total fish in the party.

Question 15: AVAILABLE CATCH. May I look at your fish? What do you plan to do with the MAJORITY of the (species)?

The purpose of Question 15 is to gather information on the fisher's available catch, that is, the catch that the surveyor can inspect during the interview. Species name and code will be used to identify the species caught by the fisher. The number of fish will be used to document the number of any one species inspected per fisher. This information will be used to estimate the total catch for the boat ramp-based, non-commercial fishery in the USVI. Measurements of length will be used to estimate the size structure of catch in the USVI. The length of the fish will be obtained following the following sampling protocol:

Question 15: Length and Weight Measurement Protocol
Supplies:

- Sampling Bucket A
- Sampling Bucket B
- Fish Measuring Board

Finfish Procedure \& Protocol
Surveyor will begin by moving the fisher’s fish to Sampling Bucket A from whatever he or she has used to contain his or her catch.

## Baitfish

For buckets of baitfish, the surveyor will record the species name of any species identified in the fisher's containment unit. The surveyor will be certain that the disposition code 3 ("Plan to use for bait") is recorded for baitfish.

Mollusks Procedure \& Protocol
For mollusks, the surveyor will record the species name and code for each species, as well as count and record the total number of each species inspected. Measurement of length and weight will not be collected for mollusks.

## Caribbean Spiny Lobster Procedure \& Protocol

For Caribbean Spiny Lobster, the surveyor will count and record the total number of lobster. The surveyor will measure the carapace beginning at the forward edge between the rostral horns, excluding and soft tissue, and proceeding along the middle to the rear edge of the carapace. The surveyor will follow Sub-Sampling Protocol 1 or 2 (as described above for finfish) for lobster as warranted. For lobster, the surveyor will record data in all fields except weight.

Finally, a "disposition of catch" will be obtained to determine the intended use of each species by the fisher. This information will be collected for the majority of the catch for any one species, and not for each, individual fish, mollusk or crustacean inspected. This data will be used to ascertain the reported or intended use for boat ramp-based, non-commercial catch in the USVI.

Question 16: UNAVAILABLE CATCH. Did you land any fish that are not here for me to look at?
Question 16 will be used to collect data on species that have been caught by the fisher, but that are not available for inspection by the surveyor. Species name and code will be used to identify the species of the unavailable catch as reported by the fisher. The number of fish will be used to document the number of unavailable catch for any one species per fisher. This information, in combination with data from Question 15, will be used to estimate the total catch for the boat ramp-based, non-commercial fishery, including releases and discards. The fisher will be asked to estimate the length of unavailable catch. Finally, a disposition of unavailable catch will be obtained to determine the disposition of each species by the fisher. This information will be collected for the majority of the catch for any one species, as opposed to each individual fish, mollusk or crustacean inspected. This data will be used to ascertain the reported or intended use for boat ramp-based, non-commercial catch.

## Demographic Questions

The questions included in this section of the survey will be used to develop a basic demographic profile of persons engaging in boat-based, recreational fishing in the USVI. This profile is needed by territorial resource managers to better understand the demographic attributes of the boat-based, non-commercial fishing public. These variables will also be used to develop an attribute profile of fishers who are most likely to depend on non-commercial fishing to support their household from a subsistence standpoint. There are two separate forms for St. Croix and St. Thomas/St. John. However they ask the exact same questions. This is done so that it is easier to code and analyze the data in a comparative manner after the data collection is complete.

Question 17: What year were you born?
This question will be used to calculate the age of the fisher interviewed. Natural resource managers in the USVI would like to know the age profile of boat-based, non-commercial fishers in the USVI.

Question 18: Do you live primarily in the USVI? That is, do you live in the USVI for 6 or more months out of each year?

This question will be used to determine if the fisher is a resident of the USVI, as opposed to a part-time resident, visitor or tourist. Natural resource managers in the USVI would like to know if persons fishing from boats in the USVI are primarily residents. Additionally, by having this information, researchers can look at the fishing activity, demographic attributes and dependency characteristics of only residents of the USVI.

Question 19: What is your island of residence?
This question will be used to determine if a fisher is a resident of St. Croix, St. Thomas or St. John. For the demographic and dependency components of this survey, we are interested in private boat-based, recreational fishers on St. Croix, St. Thomas and St. John. Differences in catch, demographic and dependency attribute profiles are expected to vary based on island of residence.

## Question 20: How many years have you lived in St. Croix, St Thomas or St John?

This question will only be asked if the fisher responds that he or she is a resident of the island of St. Croix, St. Thomas or St. John. This question will be used to determine the average years of residence for boat based recreational fishers of St. Croix, St. Thomas or St. John. Patterns in fishing activity and dependency will be examined relative to years of residency. Territorial resource managers would like to know if there are differences in patterns of fishing activity or dependency based on how long a person has lived on the island.

Question 21: Which estate do you live in on St. Croix, St. Thomas or St. John?
In the USVI, estate is a standard geographical boundary that is recognized and used by residents. The estate system of geographical organization is a remnant of the Territory's colonial history. The U.S. Census Bureau geographically organizes the Territory into island (i.e., a "county equivalent"), sub-district, and estate. Estate can be most effectively understood as an equivalent to a census "block." According to the U.S. Census, census blocks are: "...statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads. Generally, census blocks are small in area; for example, a block in a city bounded on all sides by streets."

This question will geographically locate the fisher on the island. Patterns in fishing activity and dependency will be examined relative to estate of residence or regions of the island created by aggregating estates. Territorial resource managers would like to know if there are differences in patterns of fishing activity or dependency based on where a person lives on the island.
According to our collaborators in the USVI, estate is the smallest geography that can be collected for the USVI. Additionally, people who live in the USVI think about residency in terms of estate, as opposed to some other geographic boundary, such as town or neighborhood. Zip codes
were deemed inadequate to spatially characterize the residence because most zip codes on the island are not geographically oriented. Use of estate is advantageous also because in November 2010, the USVI and US Census Bureau signed a memorandum of understanding adopting estate as the "official geographic area" to be used both by the US Census Bureau as well as government agencies in the territory, including the USVI Department of Planning and Natural Resources. Thus, data from this collection will be complementary, geographically speaking, to 2010 Census data when it is released for the USVI.

## Question 22: Where you were born?

Territorial resource managers would like to know if place of birth is associated with differences in patterns of fishing activity or dependency in the USVI.

## Economic Add on questions:

1. for your fishing trip today, how much did you spend on
a. boat fuel and oil
b. bait
c. ice
d. food (for you) from a grocery store or deli
e. truck fuel and oil
2. do you live on [island]? if yes, then jump to question 7
3. how many nights are you staying here?
4. was the primary purpose of coming to [island] to fish?
5. how many days are you fishing during the trip?
6. about how much are you spending on the whole trip for airfare, hotels, restaurants etc?

Questions 1a-1e are designed to collect economic expenditure information for the fishing trip. Questions from this section closely mirror those of the 2011 MRIP Socioeconomic Add-on (OMB Control No. 0648-0052) in the mainland U.S. The collection of such information allows NOAA economists to estimate the economic value and economic impact of recreational fishing trips and thus support the Caribbean Fishery Management Council's implementation of National Standard 5 of the Reauthorize Magnuson Stevens Act (the efficient utilization of fishery resources).

Question 2 is a time saving measure; there is no point in asking resident anglers questions about longer trips to the island if they are resident.

Questions 3-6 also mirror those of the MRIP Socioeconomic Add-on. In order to properly allocate a portion of the fishing trip costs to portions of a larger vacation or holiday trip to the island, NOAA economists need to know how long the overall trip will be and the travel and lodging costs incurred.

## Compliance with Information Quality Guidelines

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. NOAA National Marine Fisheries Service will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response to Question 10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that met all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to Section 515 of Public Law 106-554.
3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

We plan to use photographic equipment to document/identify species and verify length.

## 4. Describe efforts to identify duplication.

This project was developed in close collaboration with local partners in the USVI, specifically, the USVI DPNR Division of Fish and Wildlife and the Division of Coastal Zone Management. This project was proposed specifically to meet a gap in data related to boat ramp-based, noncommercial fishing in the USVI. To our knowledge, it does not duplicate research proposed or underway in the USVI by the territorial government agencies. This project complements a second data collection project proposed for St. Croix, selected for funding by the NOAA Coral Program and approved under OMB Control No. 0648-0671 in FY2013. This complementary project, titled "Survey of Shore-Based, Non-commercial Fishery in St. Croix, US Virgin Islands" is led by Dr. Theresa Goedeke, who is a Social Scientist for the Center for Coastal Monitoring and Assessment at the National Ocean Service (NOS) in Silver Spring, MD. The principal investigators of each project are coordinating the two projects so as to eliminate duplication of effort and data collection, as well as to maximize resources and the value of data collected.

This data collection is being coordinated with NMFS Science \& Technology Marine Recreational Information Program (MRIP). NMFS MRIP does not presently conduct surveys of recreational fishers in the USVI. However, MRIP sponsored a workshop in September 2012 to review and recommend research approaches for the collection of data on recreational fishing in the USVI. The final report, released March 2013, offered the development and execution of pilot projects to assess the efficacy of different research approaches. ${ }^{2}$ The purpose of this workshop was to assist the jurisdiction with development of a plan to collect data on non-commercial fisheries. MRIP does receive and fund proposals to conduct data collections on recreational fishing in the United States and Territories. It is possible that MRIP has received proposals for

2 Munoz, Breda, et al. 2013. Statistical Consultants’ Report: Review of Virgin Islands Sampling Needs. Final Report to the NMFS Marine Recreational Information Program, March 2013.
data collections in the USVI or US Caribbean since the development to the present project. Through coordination with MRIP, duplication of effort as a result of this granting program will be avoided. MRIP researchers have reviewed our survey instrument, as well as the sampling and statistical design.
5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

This collection will not involve small businesses or other small entities.

## 6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If the proposed information were not collected (or collected less frequently), then NOAA and the CFMC would not be able to adequately satisfy the legal requirements put forth by the CRCA, MSA, NEPA, and EO 12898. The latter three mandates require regional fishery management councils to establish conservation and management measures, which take into account the importance of fishery resources to fishing communities in order to provide sustained fishing community participation and to minimize, to the extent possible, adverse economic impacts on such communities. Furthermore, all of these requirements mandate that CRCP and the regional fishery management councils establish conservation and management measures using the best available information.

The absence of up-to-date socio-economic information would limit the Agency's ability to estimate the economic impacts of management proposals and examine the performance of existing regulations. Hence, the merits of management proposals would continue to be debated without sound information. Current information would also minimize the likelihood of unforeseen impacts of existing regulations. In addition, the availability of current information would minimize the likelihood of unforeseen impacts of existing regulations and court challenges on the grounds of deficient analysis. Last, the collection of detailed socioeconomic data will allow fishery managers to make timely and better-informed decisions by having the best scientific information available.

Finally, if this data collection is not carried out, gaps in data relative to non-commercial fishing in the USVI will persist and territorial managers in the USVI will not have the information to understand the nature of the boat ramp-based, non-commercial fishing public.

## 7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

Data collection will be consistent with OMB guidelines.
8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice was published on Monday, September 14, 2015; Federal Register 80 FR 55906) to solicit public comments. No comments were received.

This project was developed in close collaboration with local partners in the USVI, specifically, the USVI Division of Fish and Wildlife and the Division of Coastal Zone Management. Principal investigators developed this data collection in consultation with staff from both territorial agencies. Additionally, principal investigators made substantial efforts to consult with local experts on fishing in the USVI, as well experts on survey and fishery research external to NMFS, including research staff with NOAA National Ocean Service (NOS). Below is a list of individuals who provided comments on some aspect of this data collection, including the survey and/or sampling designs:

Jonathan E. Brown
St. Croix District Office Division of Fish and Wildlife
Department of Planning and Natural Resources
US Virgin Islands
William C. Coles, PhD
St. Croix District Office Division of Fish and Wildlife
Department of Planning and Natural Resources
US Virgin Islands
John Farchette III, CIG
St. Croix East End Marine Park
Coastal Zone Management
Department of Planning and Natural Resources
US Virgin Islands
Marlon Hibbert
USVI Management Liaison
NOAA Coral Reef Conservation Program
NOAA National Ocean Service
Barbara Kojis, PhD
Private Consultant, St. Thomas, USVI
Sabrina J. Lovell
Economist

Office of Science and Technology
NOAA National Marine Fisheries Service
Lia A. Ortiz
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Department of Planning and Natural Resources
US Virgin Islands
Tom Sminkey, PhD
Fisheries Statistics Division
NOAA National Marine Fisheries Service

William Tobias
Private Consultant, St. Croix, USVI
Steve Turner, PhD
Fisheries Statistics Division
Southeast Fisheries Science Center
NOAA National Marine Fisheries Service
9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts will be given to respondents.

## 10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

Foremost, it is important to note that no personally identifiable information will be collected in the course of this project. Nevertheless, as stated on the survey instruments, respondents will be advised that any information provided will be considered private. Respondents will be informed that data will only be reported in aggregate at the conclusion of the study. Whenever data are
requested, the Agency will ensure that information identifying the pecuniary business activity of a particular individual is not identified. Only group averages or group totals will be presented in any reports, publications, or oral presentations of the study's results.
11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

No questions of a sensitive nature will be asked.

## 12. Provide an estimate in hours of the burden of the collection of information.

We estimate that the number of respondents will be 250 and the time per response will be about 15 minutes. Hence, we are requesting 63 burden hours. The 15 minute per response burden includes the time for reading the instructions, reviewing the questions, and completing the survey instrument. This estimate is based on the type of questions asked, length of the survey instrument, and MRFSS experience conducting similar surveys.
13. Provide an estimate of the total annual cost burden to the respondents or recordkeepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

No additional cost burden will be incurred by respondents beyond response time.

## 14. Provide estimates of annualized cost to the Federal government.

The funding for this project originated with NOAA’s Coral Reef Project. The grant has a three year funding cycle. The annual breakdown is as follows:

- FY13: $\$ 49,706$. Of this, $\$ 2750$ is for federal travel, and $\$ 46,956$ has been placed in an account for contracting fees.
- FY14: $\$ 87,087$. Of this, $\$ 3286$ is for federal travel, $\$ 1000$ for supplies, and $\$ 82,801$ has been placed in an account for contracting fees.
- FY15: $\$ 85,999$. Of this, $\$ 5999$ is for federal travel, $\$ 15000$ foTr federal salaries, and $\$ 65,000$ has been placed in an account for contracting fees.

Total annualized costs: \$74,264.

## 15. Explain the reasons for any program changes or adjustments.

This is a new information collection.
16. For collections whose results will be published, outline the plans for tabulation and publication.

Data will be collected and analyzed by the research team. Findings will be presented in a variety of formats, including tables, graphs, and maps. Upon completion of the project, the research team will produce a NOAA Technical Memorandum report of findings that will be made available to our collaborating territorial agencies and the public in PDF format. Additionally, we will develop non-technical briefing materials that can be used by managers for outreach to their own constituents and focal audiences. Project principal investigators will provide at least one 'end-of-project' presentation to interested managers and, additionally, one presentation to the non-commercial fishing community in St. Croix and one in St. Thomas/St. John. The latter presentation is planned as a form of reciprocity to thank the community for participating in the study and to proactively inform them of study findings. Finally, research findings may be presented at professional conferences and will be published in peer reviewed social science or fisheries journals.

## 17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

The OMB control number and expiration date will be displayed.

## 18. Explain each exception to the certification statement.

There are no exceptions to the certification statement.

