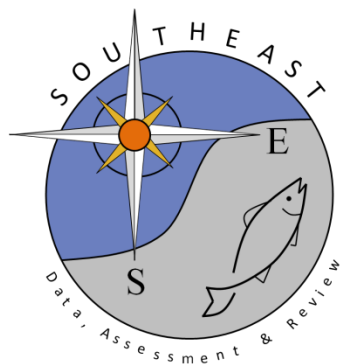


# Activity and harvest patterns in the U.S. Virgin Islands recreational fisheries

Ivan Mateo, Ruth Gomez, K.Roger Uwate, Barbara Kojis, Dean C. Plaskett

SEDAR57-RD-18

June 2018



CSP7

## FINAL REPORT

Submitted to:

U.S. Fish and Wildlife Service  
Sport Fish Restoration Program

STATE : U.S. Virgin Islands  
PROJECT NUMBER : F-8  
PROJECT TYPE : Research and Survey.  
PROJECT TITLE : Recreational Fisheries Assessment Project.  
STUDY TITLE : Activity and harvest patterns in the U.S. Virgin Islands recreational fisheries.  
PERIOD COVERED : October 1, 1995 - September 30, 2000.  
DATE SUBMITTED : December 31, 2000.

Ivan Mateo, Principal Investigator  
Ruth Gomez, Team leader  
K.Roger Uwate, Ph.D. Chief of Fisheries  
Barbara Kojis, Ph.D. Director  
Dean C. Plaskett, Esq., Commissioner

## INTRODUCTION

Saltwater recreational fishing is one of the most important outdoors activities in the US Virgin Islands (USVI) (see Griffith et al. 1988; Hinkey et al 1994; Friedlander and Contillo 1994; Adams 1995; and Friedlander 1995). In the 1990's, a recreational fishing study showed that recreational fishing activities contributed \$25 million annually to the USVI territorial economy (Hinkey et al 1994). In 1999, it was estimated that 11 percent of USVI residents participated in recreational fishing activities (Mateo 1999).

The USVI marine inshore recreational fishery is a multi-species fishery (Adams 1995 and Adams 1997). USVI fishermen harvest more than 80 different fish species. In addition, several types of gear are used to catch fish. The most popular methods include rod and reel, hand line, spear fishing, free diving, scuba diving, seine netting and cast netting (Jennings 1992 and Mateo 1999).

There are differences in recreational fishing between the islands of the USVI. Recreational fishery activities in St. Croix primarily take place on the shoreline whereas most of St. Thomas/St John recreational fishing is from boats (Jennings 1992 and Mateo 1999).

St. Thomas is a world famous fishing grounds for big game sportfishing (Friedlander and Contillo 1994; Adams 1995; and Friedlander 1995). According to Freidlander (1995), it is one of the most important locations in the world for fishing the blue marlin, *Makaira nigricans*. Much of the offshore recreational fishery in St. Thomas occurs on the North Drop 30 km north of St. Thomas in waters adjacent to the British Virgin Islands (Friedlander 1995). Some offshore recreational fishing also occurs at the South Drop located 13 km south of St. Thomas (Friedlander 1995). The St. Thomas offshore recreational fishing fleet is composed of about 150 vessels including some 40 vessels from the mainland USA that visit and fish during the marlin season which is from June to October (Harry Clinton, Virgin Islands Gamefish Club, personal communication, December 17, 2000).

The St. Croix offshore recreational fishery is much smaller than that of St. Thomas. St. Croix's offshore recreational fishing fleet is composed of less than 30 boats (Adams 1995). St. Croix offshore recreational fishing is primarily in the north and east sides of that island.

Much of the emphasis of the offshore recreational fishery is on the blue marlin (Brandon 1999 Friedlander 1995; Adams 1995). Other offshore pelagic species are also caught in the USVI offshore recreational fishery such as dolphin, *Coryphaena hippurus*, wahoo, *Acanthocybium solandri*, different species of tunas, as well as coastal pelagic species such as the king mackerel, *Scomberomorus cavalla* (see Brandon 1999 Friedlander 1995; and Adams 1995)

In 1983, a comprehensive port sampling program was developed by the USVI Division of Fish and Wildlife (DFW) to collect data on the recreational fishing activities in the USVI (Brandon 1989). The monitoring program consisted of dockside sampling and surveys of fishing tournaments. On St. Thomas, the sampling effort was focused on the offshore fishery (primarily for blue marlin). On St. Croix, port samplers interviewed shoreline fishermen and small boat

owners who fished. In addition, fisheries information was obtained from angler diaries and from fishing tournaments.

During the early 1990's, USVI recreational fishing data were collected from St Thomas charter boats (Fisher and Ditton 1992; Friedlander 1995; and Friedlander and Contillo 1994). In 1993, DFW enlarged the sampling protocol so that the entire USVI recreational fishery could be assessed (Adams 1995). A new randomized survey design was initiated to include sampling of shoreline fishing areas, boat launching areas, and marinas. In addition, personal interviews were completed and angler diaries were reviewed to better assess the offshore recreational fishery (Adams 1995 and 1997).

In 1995, the 1993 randomized survey design was changed to a non-uniform probability roving shoreline creel survey (Adams 1995). According to this method, sampling effort was based on probabilities of fishing pressure at different areas. This probability was based on a preliminary assessment of the fishery that identified fishing patterns in each area and for each time period.

The objectives of the recreational fishery assessment project were standardized in 1995. Specific project objectives were to:

1. determine the activity patterns of recreational fishers;
2. develop an appropriate sampling design based on activity patterns;
3. estimate recreational fishing effort and harvest;
4. develop and implement a standardized recreational logbook program for offshore recreational anglers so that appropriate data could be collected;
5. collect data from fishing tournaments,
6. conduct a telephone survey of USVI resident regarding their recreational fishing activities; and
7. conduct a socio-economic study on the USVI recreational fishery.

The household telephone survey was completed in FY1998. Results were documented in Mateo (1999). In 1999, the socio-economic study was contracted to the University of the USVI Eastern Caribbean Center. During FY1999, DFW and the University of the Virgin Islands Eastern Caribbean Center signed a memorandum of understanding (MOU) for this survey and finalized the survey form. The University of the Virgin Islands Eastern Caribbean Center then completed interviews with 344 St. Croix and 477 St. Thomas recreational boaters. A final report should be completed in early 2001.

This report documents results of the 1995 USVI recreational fishery assessment project from October 1, 1995 to September 30, 2000. Details of the telephone survey are not presented here since they are documented in Mateo (1999). In addition, no details are provided about the socio-economic study that should be completed in early 2001.

## **METHODS**

### **Shoreline Survey Program**

The roving creel survey method with non-uniform probability sampling (Malvestuto et al. 1978) was used to estimate effort and fishing success (CPUE= Catch per Unit Effort, PPUE= Pounds per Unit Effort) from shoreline fishermen between October 1, 1995 and September 30, 2000. St. Croix (Figure 1) and St. Thomas (Figure 2) were divided into six and five areas, respectively, based on Adams (1995). For each area, the period of the survey was months (block). Each month (block) was then divided to time of day (sampling period). Time of days were defined as AM (0700-1000 hours), MD (1000-1400 hours), PM (1400-1700 hours).

Probabilities proportional to the amount of fishing expected (based on Adams 1995) were assigned to each sampling period (time of day). Within any given block (month), the sum of the probabilities equaled 1. Sampling units within each block were randomly selected. The probability that sampling would be conducted within each sampling unit was proportional to the estimated fishing effort for that unit.

For each sample, the port agent began at one end of the sample area and drove through the entire area counting the total number of anglers fishing from the shoreline, from piers, and docks. All anglers that were accessible were interviewed. There were 15 sampling assignments scheduled per month on each island. Total sample time for each area/time of day sampling period was approximately one hour. Surveys took place within the designated three-hour time of day sampling period.

During FY 1999 (October 1, 1999 to September 30, 2000), DFW surveyed recreational anglers only during evening hours = EV (1700-2000 hours). Due to budget constraints, weekdays sampling during other sampling periods (AM, MD, and PM) were not done in FY 1999.

Data analysis was completed so that estimates of effort (anglers counted per survey hour) and harvest (CPUE = number of fish caught per hour, PPUE = pounds of fish landed per hour per day, month and fiscal year by area) could be made.

Total percentage of anglers interviewed by location was calculated by dividing the number of anglers interviewed on a particular site by the total number of interviews. Differences between fishing effort and harvest estimates among categories (area, time, month, fiscal year) were analyzed by Kruskal-Wallis One-Way ANOVA (KW) after  $\log(x+1)$  and square root transformation failed to pass Kolmogorov-Lilliefors Normality Test (Sokal and Rohlf 1981).

### **Personal Interviews**

In addition to the shoreline sampling program outlined above, shore and boat recreational anglers were also interviewed outside of the non-uniform probability sampling program when possible. These interviews were conducted when port samplers encountered anglers while on other assignments. All personal interview information was recorded on the standardized DFW

recreational interview form (Appendix I) and entered into the computer database. Catch (number and weight of fish caught) and effort were estimated by year, area fished, season, and fishing locations. Data was combined with information from logbooks for subsequent analysis due to the small amount of data.

## Logbooks

At tournaments, marinas and other locations, boat recreational fishermen were asked by port agents to participate in the logbook program. The anglers participating in this program were selected by port samplers and were required to supply the port sampler with a contact phone number. The number of anglers participating at the beginning of the program was 50 anglers on St. Thomas and 34 anglers in St. Croix respectively (Ruth Gomez and Aaron Adams, USVI-DFW, personal communication, December 21, 2000).

From October 1, 1995 to September 30, 2000, recreational fishermen with numbered logbooks were contacted monthly by phone or personally in St. Thomas and St. Croix. Catch reports taken from logbooks were recorded as logbook interviews. Each trip was treated as a separate interview. All logbook interview information was recorded on the standardized DFW recreational interview form (Appendix I) and entered into the computer database. Catch (number and weight of fish caught) and effort were estimated by fiscal year, area fished, season, and fishing locations (offshore, inshore). Since the number of rods per boat was four in greater than 98% of all offshore trips, therefore catch (fish weight) per unit effort (PPUE) was calculated as the number of pounds per boat hour. PPUE was calculated for the 12 most commonly caught species for all private and charter boat interviews. In this analysis, no distinction was made between fishing methods or bait type.

## Tournaments

Between 1995 and 2000, DFW personnel acting as weigh masters for 48 organized fishing tournaments. During these fishing tournaments, data on catch, effort, species harvested, species caught and released, and areas fished were collected.

## RESULTS

### St. Croix Shoreline Recreational Fishing

Table 1 lists all finfish species observed in shoreline interviews. Fifty-two species from twenty-four families were observed during the sampling period of fiscal years 1995 to 1999. The squirrelfish, *Holocentrus* spp., followed by the French grunt, *Haemulon flavolineatum*, and the bar jack, *Caranx ruber*, were the most frequently reported species in these interviews.

In St. Croix, 691 anglers were counted during shoreline surveys, of which 329 were interviewed (see Table 2). The greatest effort in shoreline fishery occurred in the vicinity of population

centers (Table 2). On St. Croix, the areas with most fishing effort occurred in Areas 1 and 2 (both on the west-end of the island). Molasses Dock (18%) followed by Fredericksted Pier (12%) were the most common fishing spots on St. Croix.

The number of fishers per hour (=fishing effort) for all months, areas and time of day periods were pooled and compared by year. The average number of anglers per hour pooled for all areas and times combined (Table 3) varied significantly from fiscal year 1995 to 1999 (KW=27.645,  $p=0.001$ ,  $df=5$ ). Dunn Multiple Comparisons Test indicated that overall mean number of fishers/hour in fiscal year 1997 and fiscal year 1999 were significantly different than in FY1998 ( $p<0.001$ ).

The number of fishers/hour for all fiscal years, areas, and time of day periods were pooled and compared by month. There was no significant difference in monthly average number of fishers/hour (KW=5.892,  $p=0.880$ ,  $df=11$ ) (see Table 4).

The number of fishers/hour was then pooled for all fiscal years, months, and day periods and compared by area. The number of fishers/hour differed significantly by area (KW=85.243,  $p<0.001$ ,  $df=4$ ). Area 1 had the highest number of fishers/hour compared to any other area (Table 5).

The number of fishers/hour data for fiscal year, month, and area were pooled and compared by time of day. There was no significant difference in the number of fishers/hour within time of day sampling periods (KW=1.830,  $p=0.608$ ,  $df=3$ ). The highest number of fishers/hour were in the PM and EV time of day periods (Table 6).

A Two-way ANOVA with ranked values was completed for average fishers/hour estimates for each area and day of sampling (weekday and weekend). ANOVA results indicated that the average number of fishers/hour within each areas was different between day of sampling (weekdays and weekends) ( $p<0.001$ ).

The number of fishers/hour estimates for weekdays were examined for possible interactions between areas and time of day period sampled (see Table 7). A Two-way ANOVA with ranked values indicated that weekday number of fishers/hour for areas was influenced by time of the day ( $p<0.016$ ).

The number of fishers/hour for weekends was then examined for possible interactions between areas and time of day period sampled (see Table 8). The number of fishers/day differed significantly between areas during weekend days (KW=38.4,  $p<0.009$ ,  $df=4$ ). There was no significant difference in number of fishers/hour and time of day sampling periods (KW=1.830,  $p=0.847$ ,  $df=3$ ).

CPUE for all areas, months, and time of day periods were pooled and compared by year (Table 3). CPUE estimates by year did not differ significantly from 1995 to 1999 (KW=7.032,  $p=0.134$ ,  $df=4$ ). Pooled CPUE compared by month (Table 4) showed no significant differences (KW=11.69,  $p=0.387$ ,  $df=11$ ). Pooled CPUE compared by area (Table 5) were not significantly

different (KW=7.015,  $p=0.062$ ,  $df=5$ ). Pooled CPUE by time of day periods (Table 6) were not significantly different (KW=7.57,  $p=0.056$ ,  $df=3$ ).

Pooled PPUE by year (see Table 3) did not vary significantly from 1995 to 1999 (KW=7.032,  $p=0.134$ ,  $df=4$ ). In addition, there were no significant differences in PPUE by month (KW=16.25,  $p=0.132$ ,  $df=11$ ) (see Table 4), area (KW=7.05,  $p=0.22$ ,  $df=5$ ) (see Table 5), or time of day (KW=3.163,  $p=0.367$ ,  $df=2$ ) (see Table 6).

During the study period, St. Croix shore recreational fishermen fished an average of 7,490 angler hours per year between 1995 and 1999 (Table 9). An estimated average of 13,038 pounds of fish/year was harvested annually by shore angler between 1995 and 1999. The overall harvest rate for the whole study was 1.74 pounds per fishing-hour.

### St. Croix Inshore Recreational Fishing

Inshore fishery harvest rates (pounds per hour) recorded from all sampling methods combined varied among modes (Table 10). During the study period, private boats fishing inshore had a harvest rate of 1.8 pounds/boat-hour (range 0.8 to 2.81 pounds per boat-hour) while shoreline fishing harvest rate was 1.01 pounds per angler-hour (range 0.77 to 1.25 pounds per angler-hour). Pier fishing mode harvest rate was 1.16 pounds per angler-hour (range 0.77 to 1.55 pounds per angler-hour). Inshore tournament harvest rate was 0.06 pounds per angler-hour (range 0.04 to 0.07 pounds per angler-hour). There was no record of charter activity in inshore fishing during the study period.

### St. Croix Offshore Recreational Fishing

Most of the fishing effort from the St. Croix offshore recreational fishery was concentrated in Area 5 and Area 4 (Figure 3). Almost 80% of the offshore fishing trips were done around these two areas.

For FY1995 to 1999, a total of 1,900 fishes comprising 12 different species were reported from personal interviews and logbook data. A list of species caught is provided in Table 11. The offshore recreational landed catch (only from boats submitting logsheets or personal interviews) for this five-year period was 41,485 pounds/5 years or 8.26 pounds/boat-hour (Table 11).

Numerically, the dolphin, *Coryphaena hippurus*, was the most commonly caught fish (877 individuals) followed by the wahoo, *Acanthocybium solandri* (450 individuals) and the blackfin tuna, *Thunnus atlanticus* (221 individuals). By weight, the dolphin was the most dominant species (18,613 pounds) caught followed by blue marlin (9,625 pounds) (see Table 11).

Annual harvest rates (PPUE=pounds per boat hours) for the twelve most commonly caught fishes varied throughout the study period (Table 12). *Coryphaena hippurus* annual PPUE ranged from 1.03 to 2.22 pounds per boat-hour, whereas *A. solandri* annual PPUE ranged from 0.34 to



1.47 pounds per boat-hour. *M. nigricans* PPUE peaked in 1998-99 with 2.24 pounds per boat-hour. Likewise, *T. atlanticus* PPUE peaked in 1998-1999 with 0.15 pounds per boat-hour.

Average weight of fish was estimated based on logsheet data and fishermen interviews. Total weight was divided by number of fish for each species. Annual average weights are presented in Table 13 for the 12 offshore fish species caught. Dolphin and wahoo average weight appeared rather stable from 1995 to 1999. Blue marlin and yellowfin tuna average weight fluctuated greatly during this same time period.

Catch (weight) per boat-hour was pooled for years and areas and compared by month (see Figure 3 and Figure 4). Seasonal trends were evident for a number of species. Dolphin and wahoo had catch peaks during winter and spring months (Figure 3) whereas the blue marlin catch peaked in the summer months (Figure 4).

### St. Croix Fishing Tournaments

A total of 10 fishing tournaments were held in St. Croix from October 1, 1995 to September 30, 2000. Results of recreational fishing tournaments on St. Croix are presented in Tables 14 to 23. Two tournaments were inshore and eight were offshore tournaments.

Inshore tournaments averaged 4 hours and overall CPUE ranged from 0.106 to 0.22 fish per angler-hour. Offshore boat angler effort averaged 9 hours and overall CPUE ranged from 0.01 to 0.23 fish per boat-hour. The catch composition of the inshore tournaments was dominated by the French grunt, *Haemulon flavolineaum*, followed by the squirrelfish, *Holocentrus spp.* The catch composition of St. Croix offshore fishing tournaments consisted of important pelagic species such as the dolphin and wahoo.

### St. Thomas Shoreline Recreational Fishing

Table 24 is a comprehensive list of all finfish species recorded from shoreline interviews in St. Thomas. Thirty-four species from twenty families were recorded during FY1995 to FY1999. Yellowtail snapper (13%) was the species most frequently reported in the interviews followed by Carangidae species.

During FY1995 to FY1999 a total of 546 anglers were counted during random shoreline surveys, and 146 were interviewed (Table 25). On St. Thomas, the highest level of fishing activity occurred in the vicinity of the Red Hook (Area 1) and Charlotte Amalie areas (Areas 2 and 3). Specifically, the UVI Dock (13%) and Crown Bay (12%) were the most popular fishing spots (Table 25).

There were significant differences in number of fishers/hour (=effort) using pooled area, month, and time of day compared by year (KW=15.351, p=0.004, df=4, see Table 26)). FY1996 had significantly more fishers/hour than FY1999. For pooled area, year, and time of day data,

there was no significant differences in fishers/hour between months (KW=26.654,  $p < 0.3$ ,  $df=11$ , see Table 27). However, the number of fishers/hour differed significantly by area (KW=48.7,  $p < 0.001$ ,  $df=4$ ). Area 1 and Area 3 had the highest numbers of fishers/hour (Table 28). There was no significant difference in the number of fishers/hour within time of day sampling periods (KW=6.86,  $p=0.078$ ,  $df=4$ ). The highest number of fishers/hour was in the evening (Table 28).

When area and time of day sampling period were examined, there was a slight increase in the number of fishers/hour during the afternoon and evening periods for Area 1 and Area 3 (see Table 29). A Two-way ANOVA ( $p < 0.0391$ ) with ranked values revealed that the different levels of effort found within areas depend on the day of sampling (weekdays and weekends). Fishing patterns by weekends and weekdays were then examined (Table 30 and 31).

For FY1995 to FY1999, there was no significant difference in mean annual CPUE (Table 26) for pooled areas, months, and time of day (KW=7.55,  $p=0.157$ ,  $df=4$ ). There was no significant difference in mean monthly CPUE (KW=7.351,  $p=0.770$ ,  $df=8$ , see Table 27). There was a significant difference in mean area CPUE (KW=14.54,  $p=0.006$ ,  $df=4$ , see Table 28). Dunn Multiple Comparison Test indicated that Area 1 had significantly higher CPUE than that of Area 3. There was no significant difference between mean time of day CPUE (KW=0.664,  $p=0.882$ ,  $df=3$ , see Table 29).

For FY1995 to FY1999, there was mean annual PPUE (Table 26) had significant differences among years (KW=2.857,  $p=0.582$ ,  $df=4$ ). Year 1995 had significantly higher mean PPUE values than year 1996. There were no significant differences in PPUE by month (KW=13.78,  $p=0.245$ ,  $df=11$ ) (Table 27), area (KW=6.608,  $p=0.194$ ,  $df=4$ ) (Table 28) or time of day (KW=0.879,  $p=0.830$ ,  $df=4$ ) (Table 29).

For weekdays, a two-way ANOVA with ranked values showed that the weekday number of fishers/hour was significantly different by areas and time of day ( $p < 0.026$ ). Area 1 had significantly higher fishing pressure than the rest of all areas except in Area 3. There was no significant difference in the number of fishers/hour between time of day ( $p=0.095$ ) even though it appeared that the number of fishers/hour in Areas 1, 3, and 5 increased during the time of the day (Table 30). There were no significant differences in mean CPUE by area (KW=13.54,  $p=0.56$ ,  $df=4$ ), or by time of day (KW=0.466,  $p=0.828$ ,  $df=3$ ). There were no significant differences in PPUE area (KW=6.806,  $p=0.234$ ,  $df=4$ ) or time of day (KW=0.798,  $p=0.380$ ,  $df=4$ ).

For weekends, a two way ANOVA with ranked values results showed that weekend number of fishers/hour was not influenced by the time of the day ( $p < 0.662$ ). The number of fishers/hour did not differ significantly by area during weekend days ( $p < 0.38$ ) but was significantly different during the time of the day ( $p < 0.010$ ). Evening hours had significantly more fishing pressure than the morning hours. When examined by area and time of day, it appeared that fishing pressure in Areas 1 and 3 increased by the time of the day (Table 31).

For weekends, there were no significant differences in mean CPUE (KW=7.59,  $p=0.107$ ,  $df=4$ ) by areas. There were no significant differences in mean CPUE between time of day (KW=8.13

$p=0.053$ ,  $df=3$ ). Also, there was no significant difference in PPUE by area ( $KW=9.88$ ,  $p=0.052$ ,  $df=4$ ) or time of day ( $KW=8.34$ ,  $p=0.11$ ,  $df=4$ ).

During the entire shoreline study period, anglers fished an average of 3,990 angler hours per fiscal year (Table 32). An estimated 6,075 pounds of fish were harvested annually by shore angler. Total harvest rate for the whole period was 1.58 pounds per angler-hours.

### St. Thomas Inshore Recreational Fishing

There were five inshore fishing modes for St. Thomas (Table 33). Inshore fishery harvest rates (PPUE) varied among modes. During the study period, charter boats had a harvest rate of 9.95 pounds/boat-hour (range 7.8-12.1 pounds/boat-hour). Private boats had a harvest rate of 9.06 pounds/boat-hour (range 2.91-15.21 pounds/boat-hour). Shoreline fishing harvest rate was 0.84 pounds/angler-hour (range 0.35-1.33 pounds/angler-hour). Pier fishing had a harvest rate of 1.16 pounds/angler-hour (range 0.77-1.55 pounds/angler-hour). Finally, tournament harvest rate was 3.66 pounds/boat-hour (range 0.14-7.17 pounds/boat-hour).

### St. Thomas Offshore Recreational Fishing

Most of the fishing effort from the St. Thomas offshore recreational fishery was concentrated in Area 1 (Figure 5). Almost 95% of the fishing trips were concentrated in this area.

A total of 1,493 fishes comprising 12 different species were recorded for FY1995 to FY1999. The total recreational landed catch from private and charter boats based on all sampling methods combined during the period from 1995-1999 was 274,133 pounds, or 20.1 pounds of fish per boat-hour (Table 34). Numerically, the blue marlin, *M. nigricans*, was the most commonly caught fish (1,045 individuals) followed by the dolphin, *C. hippurus* (80 individuals) and the wahoo, *A. solandri* (71 individuals). Likewise, by weight, the blue marlin was the most dominant species caught followed by the dolphin (Table 34).

Annual harvest rates for the 10 most commonly caught fishes varied throughout the study period (Table 35). *M. nigricans* annual PPUE ranged from 14.27 to 24.31 pounds per boat-hour. *C. hippurus* annual PPUE ranged from 0.07 to 0.58 pounds/boat-hour. *A. solandri* PPUE peaked in 1995-1996 with 0.24 pounds per hour. Likewise, the yellowfin tuna, *T. albacares*, PPUE peaked in 1995-1996 with 0.25 pounds/boat-hours.

Annual mean fish weight (pounds/fish) for offshore pelagic species in St. Thomas either remained relatively stable or fluctuated throughout the entire period (Table 36). *M. nigricans* and *C. hippurus* mean fish weights were both highest in FY1997 to FY1998. *A. solandri* mean fish weight was highest in FY1998 to FY1999.

When catch rates were examined on a monthly basis, seasonal trends in harvest became evident for a number of species (see Figure 6). *M. nigricans* has higher catch rates during the summer

months. Other species such as the wahoo and dolphin show minor peaks in catch rates during winter and spring months (Figure 6.)

### St. Thomas Fishing Tournaments

Between FY1995 to FY1999, a total of 36 fishing tournaments were held in St. Thomas. Sixteen tournaments were inshore and twenty-two were offshore tournaments (see Tables 37 to 74). Inshore tournaments averaged 6 hours and overall CPUE was 5.37 fish/boat-hour (range 0.95-9.79 fish/boat-hour). Offshore boat angler effort averaged 9 hours and overall CPUE was 0.833 fish/boat-hour (range 0.026 to 1.64 fish/boat-hour). The catch composition of St. Thomas inshore fishing tournaments was dominated by squirrelfish, *Holocentrus* spp., followed by members of the family Serranidae (i.e. *Epinephelus cruentatus*, *E. fulvus* and *E. guttatus*). The catch composition of St. Thomas offshore fishing tournaments was dominated by blue marlin, *M. nigricans*, followed by other important pelagic species such as the dolphin, *C. hippurus*, and wahoo, *A. solandri*.

### DISCUSSION

In this inshore recreational fishing study, it was difficult to cover the large number of scattered locations throughout USVI. If this study is repeated, it would be appropriate to budget additional resources (staff and vehicles) so that the sampling schedule can be followed and not be compromised. In general, the non-uniform roving creel survey method as outlined by Malvestuto et al (1978) proved to be an effective means to monitor and estimate shoreline fishing in USVI. However, refinements can be made to improve data collection. There are a number of factors that can influence recreational fishermen and their catch rates such as climactic conditions, previous success in the site area, safety issues, changes in abundance of fish populations due to reproductive cycles, migrations, and presence of bait fish (Malvestuto 1983).

Shorefishing is a form of recreation practiced by thousands of USVI residents annually despite low catches and lack of facilities (Jennings 1992; Adams 1995; and Mateo 1999). The shore fishery for both islands is a multi-species fishery. The species composition of the recreational landings was similar for St. Croix and St. Thomas. In both St. Croix and St. Thomas, small fish species commonly used as bait (such as *Jenkisia laeproetania*, *Anchoa lyolepsis*, and *Harengula humeralis*) made up a major component of the recreational angler catches. Large catches of baitfish were occasionally recorded for a small numbers of anglers.

Shore fishing effort appeared to be related to two major factors: (1) the proximity to populated areas, and (2) the accessibility of the fishing site. Few shore fishermen were observed in remote areas such as areas 4 and 6 in St. Croix and areas 1 and 5 on St. Thomas. This was probably due to poor fishermen access to these areas. Results here indicate that most fishing occurs later in the day (afternoon and evening hours).

The offshore recreational fishery in St. Thomas and St. Croix are very different. The St. Thomas offshore fleet consists of large charter boats and a small fleet of local vessels that are present only during the summer when blue marlin catches peak (Griffith et al 1988; Hinkey et al 1994; and Adams 1995). Other pelagic species are also caught in USVI. However, the blue marlin is the most targeted species (Friedlander 1995 and Adams 1995). In St. Thomas, most vessels are found in the eastern end of the island. The eastern side of the island is closest to the North Drop (Area 1) where the most fishing for pelagic species occurs.

The St. Croix offshore fleet is composed of small private resident vessels and few charter boats (Griffith et al 1988; and Hinkey et al 1994). Much of the fishing effort targets species for food consumption and recreation (Mateo 1999). Because St. Croix shelf is narrow to the north and east, there is quick access to deep waters. As such, most offshore fishing effort is in the north and east coasts of St. Croix (areas 4, 5, and 6).

In this study, seasonal trends were evident for certain species such as the blue marlin, dolphin and wahoo. Wahoo catches peaked in the fall and dolphin catch was highest from March to May. Peak catches of billfish and blue marlin occurred during the summer months. PPUE for offshore fish species fluctuated between 1995 to 2000, but shows no pronounced or overall upward to declining trend.

Fishing tournaments are opportunities to collect recreational fishing data. Each tournament is different. In St. Thomas offshore fishing tournaments are dominated by blue marlin catches. St. Croix offshore fishing tournaments target other pelagic species such as wahoo, dolphin, and kingfish. There are some inherent problems with tournaments. In some cases, fishermen do not bring their total catch to the weighing station. Therefore total catches can be underestimated.

Recreational fishing in the USVI provides a leisure activity for thousands of people (Jennings 1992 and Mateo 1999). Recreational fishing is a year around activity practiced by all age groups and social strata (Griffith et al 1988; and Hinkey et al 1994). Recreational fishing in USVI is also promoted as a tourist activity and contributes to the local economy (Griffith et al 1988 and Hinkey et al 1994). The high quality of USVI big game fishing is a plus for marketing USVI as a global game fish fishing destination.

DFW efforts to assess and monitor recreational fisheries should be continued. In addition, support should be provided to improve access to remote sites so that localized overfishing of popular shore sites can be avoided.

## LITERATURE CITED

- Adams, A. 1995. Final Report Recreational Fishery Assessment Project. Division of Fish and Wildlife, DPNR Government of the US Virgin Islands. 18 pp.
- Adams, A. 1997. Annual Report Recreational Fishery Assessment Project. Division of Fish and Wildlife, F-8-7 DPNR Government of the US Virgin Islands. 16 pp.

Brandon, M. 1989. Marine recreational fisheries statistics of the US Virgin Islands, January 1983 to September 1985. Proc. Gulf Caribb. Fish. Inst. 38: 665-683.

Fisher, M.R. and R.B. Ditton. 1992. Characteristics of billfish anglers in the US Atlantic Ocean. Mar. Fish. Rev. 54: 1-6.

Friedlander, A. 1995. The recreational fishery for blue marlin *Makaira nigricans* (Pisces: Istiophoridae) in the US Virgin Islands. Fish. Res. 22: 163-173.

Friedlander, A. and J. Contillo. 1994. Results of recreational billfish tournaments in the Virgin Islands, 1973-1990. Proc. Gulf. Caribb. Fish. Inst. 43: 395-408.

Griffith, D.C., M.V. Pizzini, R. Chaparro, J. Johnson, and J.D. Murray. 1988. Developing Marine Recreational Fishing in Puerto Rico and The US Virgin Islands. Final report submitted to National Marine Fisheries Services. # NA866WC-H-06108. 102 pp.

Hinkey, M.L., N. Quinn, and R. Strickland. 1994. A survey of marine recreation services in the US Virgin Islands. Final report submitted to Eastern Caribbean Center, University of the Virgin Islands PRU-T-92-001. 47 pp.

Jennings, C.A. 1992. Survey of Non-Charter Boat Recreational Fishing in the US Virgin Islands. Bull. Mar. Sci. 50(2): 342-351.

Malvestuto, S.P., W.D. Davies, and W.L. Shelton. 1978. An evaluation of the roving creel survey with non-uniform probability sampling. Transactions of the American Fisheries Society. 107: 255-262.

Malvestuto, S.P. 1983. Sampling the recreational fishery. Pages 397-419 in L.A. Nielsen and D.L. Johnson, eds. Fisheries techniques. American Fisheries Society. Bethesda, MD

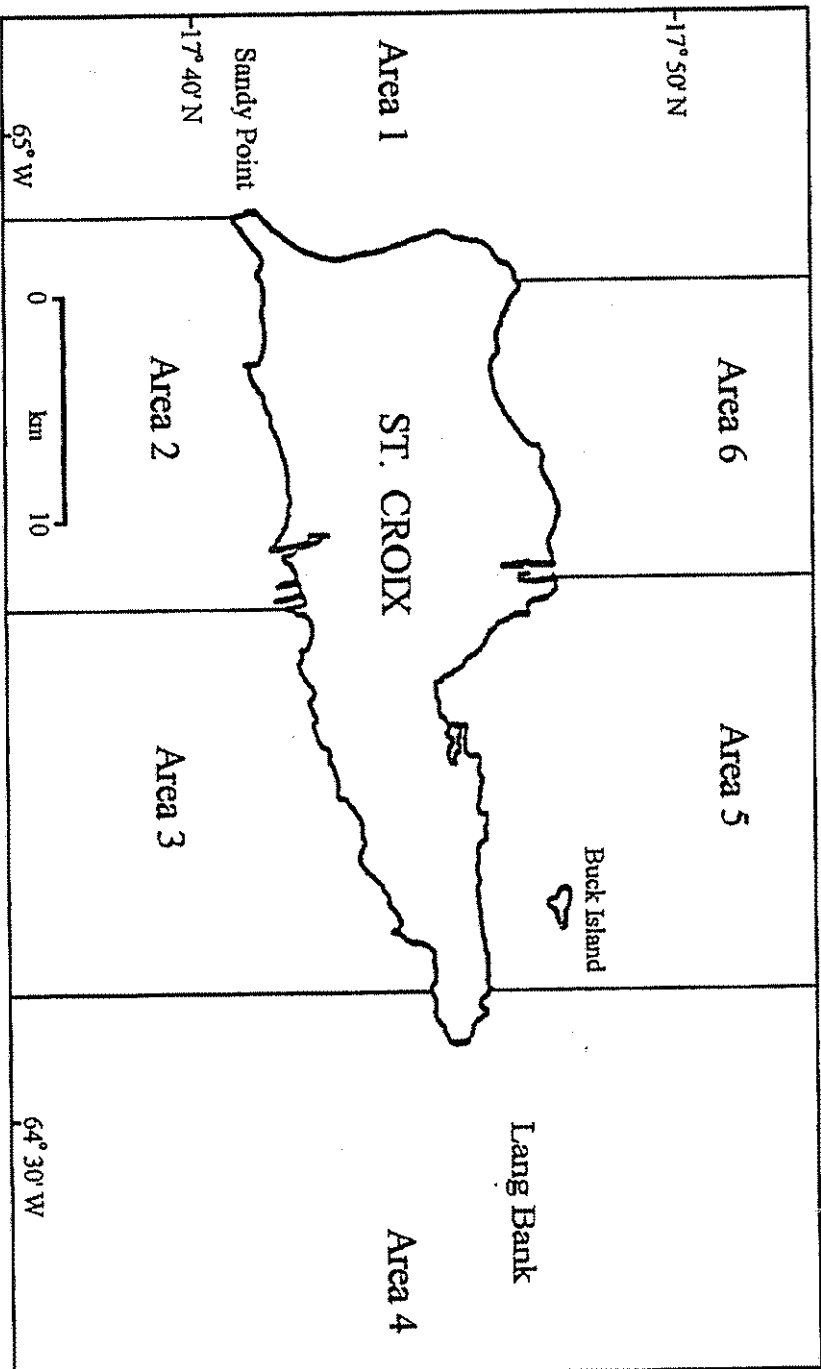
Mateo, I. 1999. Annual Report Recreational Fishery Assessment Project F-8-9 Job 7: Angler Telephone Household Survey. Division of Fish and Wildlife, DPNR, Government of the US Virgin Islands. 6 pp.

Sokal, R.R. and F.J. Rohlf. 1981. Biometry. W.H. Freeman and Company, New York. 959 pp.

## **ACKNOWLEDGMENTS**

We thank W. Ventura, H. Rivera, S. Caseau, E. Hatchette, J. Barbel, V. Gomez, and D. Jackson, for their logistical provided during this study. This study was funded by U.S. Fish and Wildlife Service Federal Aid Grant, F-8 under the Dingell-Johnson Sport Fish Restoration Act.

Figure 1. St. Croix fishing areas.



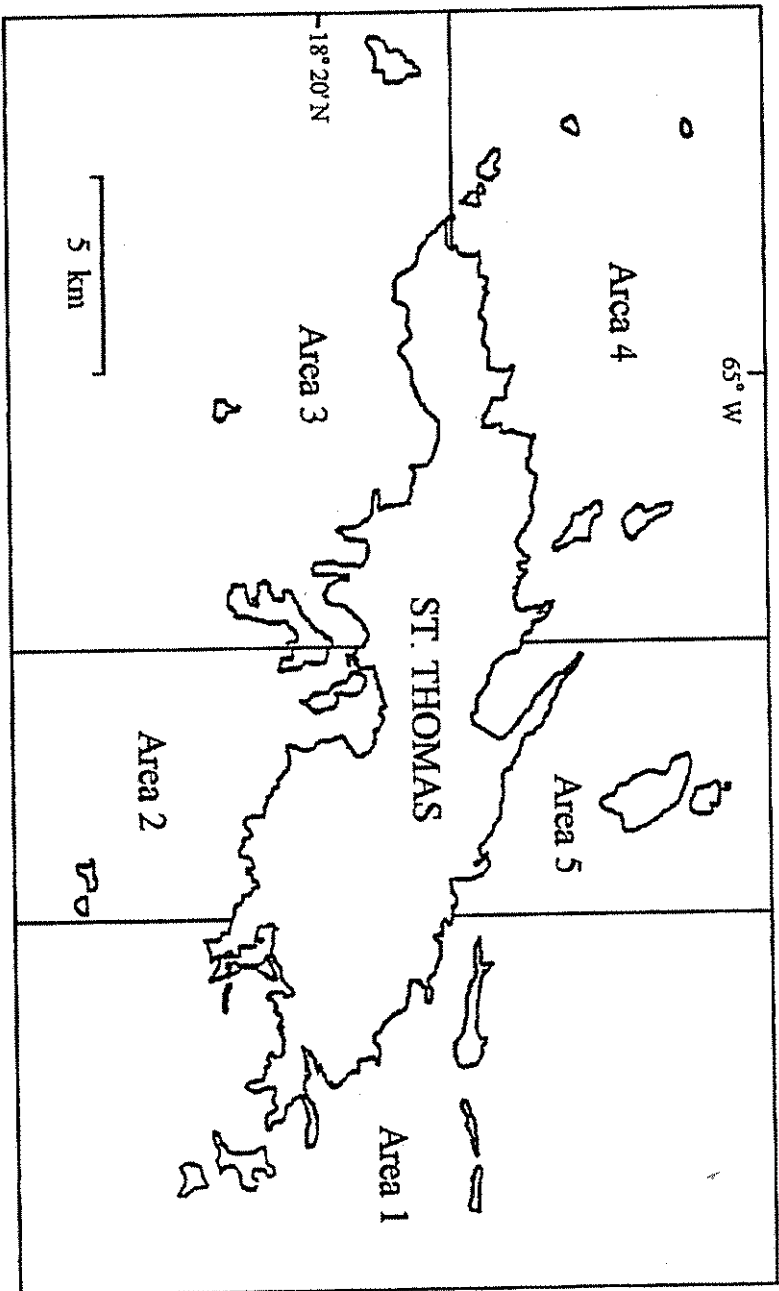


Figure 2. St. Thomas fishing areas.



Figure 3. Percentage of Fishing Effort (Number of Hours Fished) by Area for the St. Croix Offshore Recreational Fishery, FY1995-FY1999.

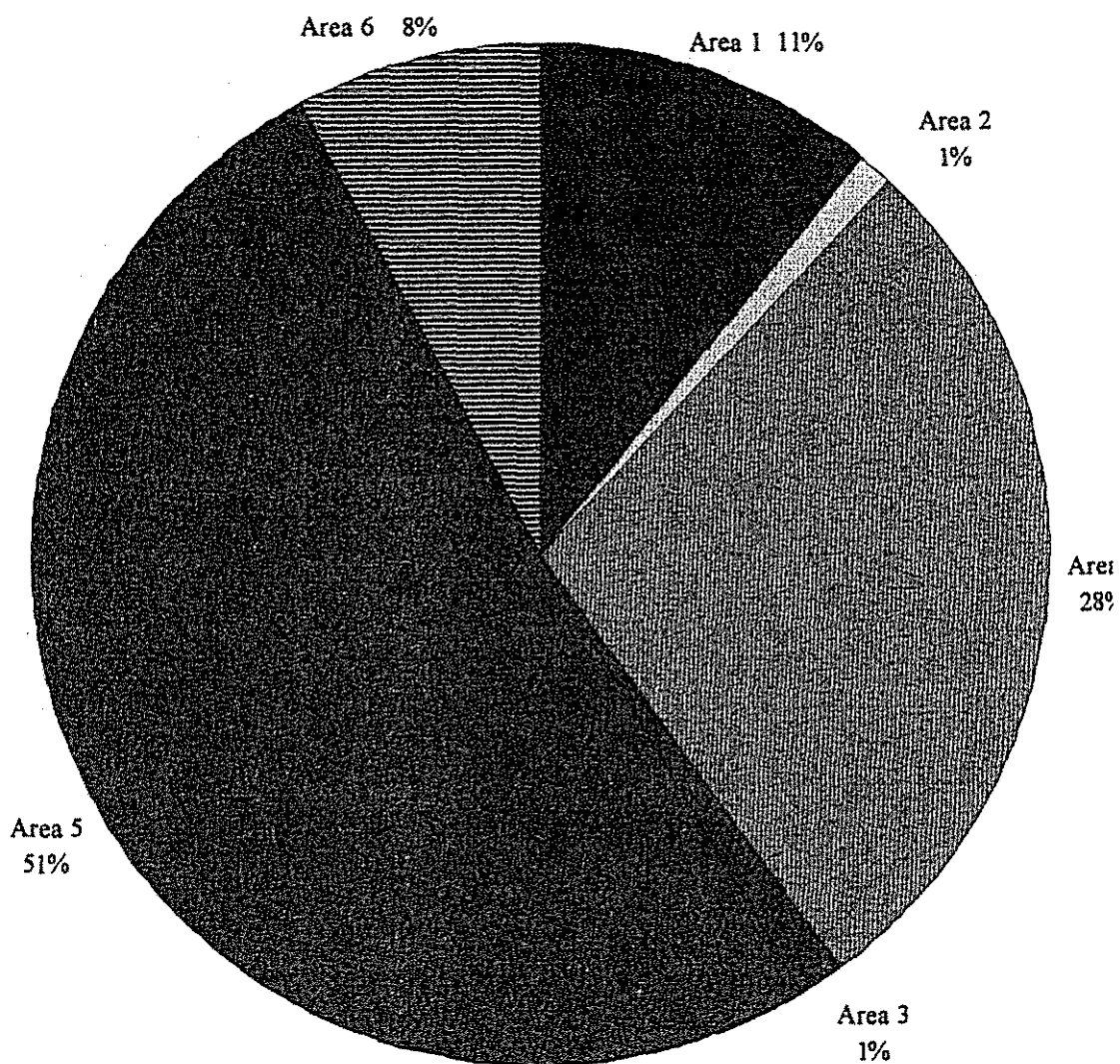


Figure 4. Monthly Harvest Per Unit Effort (number of pounds/boat-hour) for the Seven Most Important Offshore Species in the St. Croix Recreational Fishery, FY1995 to FY1999 (tournament data not included).

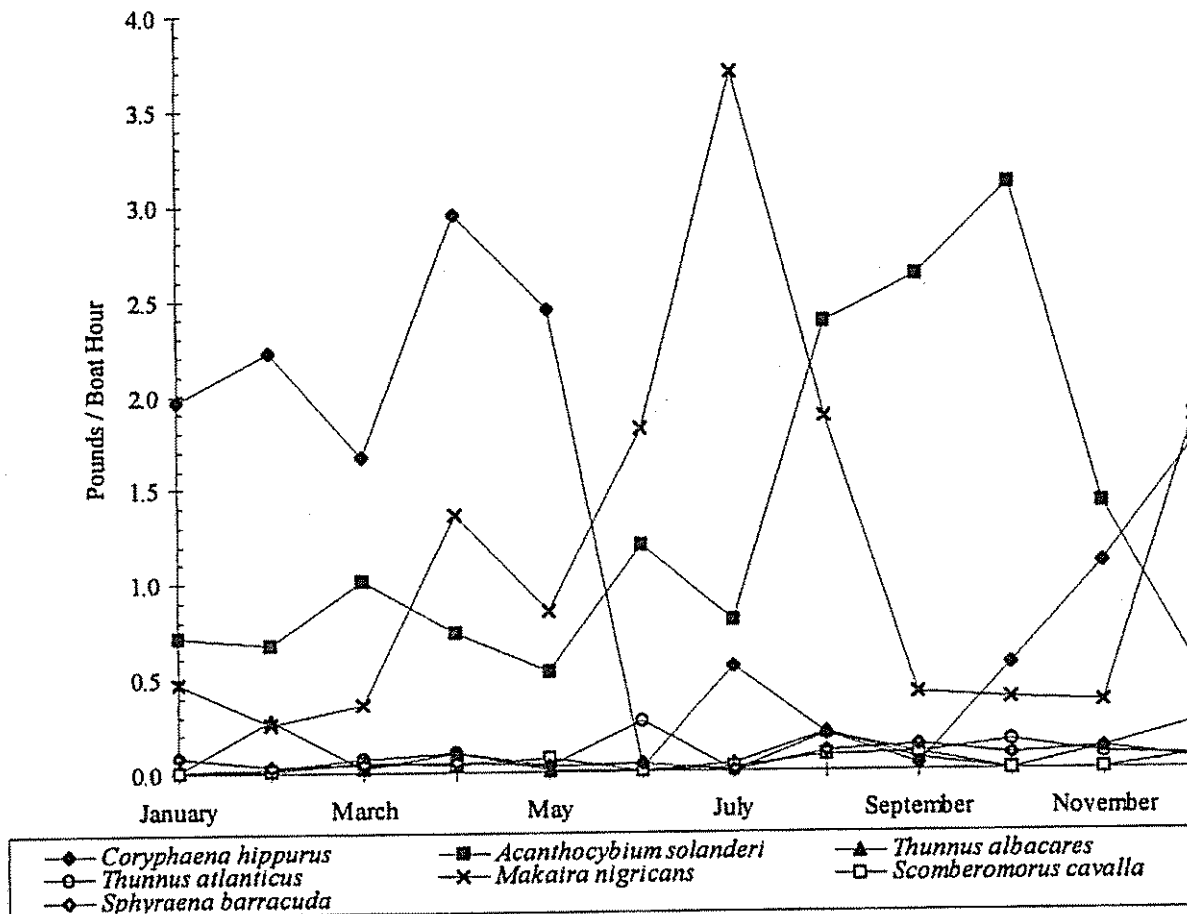


Figure 5. Percentage of Fishing Effort (number of hours fished) by Area for the St. Thomas Offshore Recreational Fishery (FY1995-FY1999).

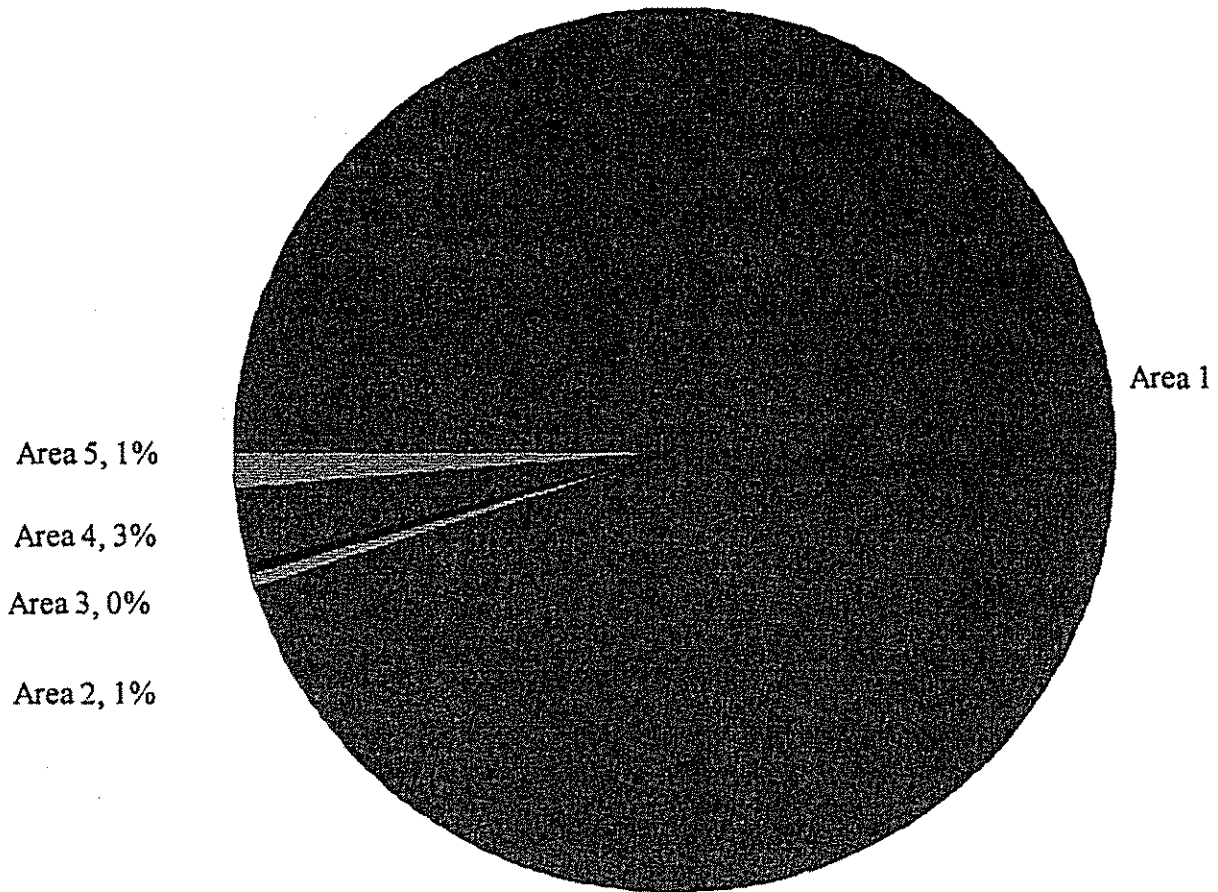


Figure 6. Monthly Harvest per Unit Effort (number of pounds/boat-hour) for the Seven Most Important Offshore Species of the St. Thomas Offshore Recreational Fishery, FY1995 to FY1999 (tournament data not included).

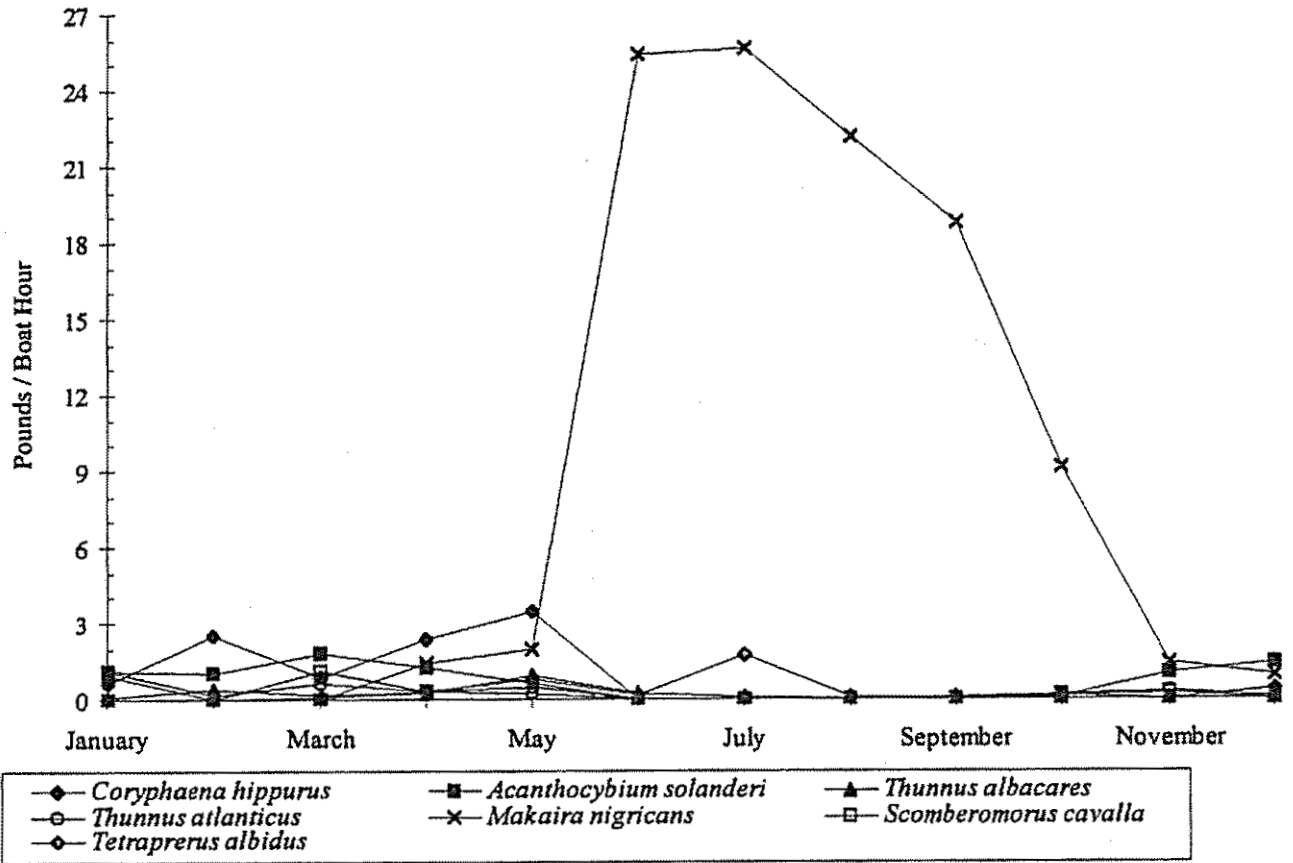


Table 1. Species of Finfish Recorded in the St. Croix Shoreline Recreational Fishing Survey FY1995 to FY1999

FAMILY	SPECIES	COMMON NAME	FREQUENCY*
Albulidae	<i>Albula vulpes</i>	Bonefish	1
	<i>Megalops atlanticus</i>	Tarpon	4
Acanthuridae	<i>Acanthurus chrirugus</i>	Doctorfish	2
Balistidae	<i>Balistes vetula</i>	Queen triggerfish	2
Belonidae	<i>Tylosurus crocodilus</i>	Houndfish	19
Carangidae	<i>Caranx ruber</i>	Barjack	28
	<i>Caranx hippos</i>	Crevalle jack	4
	<i>Caranx spp</i>	Unidentified jack	2
	<i>Caranx crysos</i>	Blue runner	4
	<i>Caranx latus</i>	Horse eye jack	3
	<i>Selar crumenophtalmus</i>	Big eye scad	1
	<i>Trachinotus falcatus</i>	Permit	3
	<i>Trachinotus goodei</i>	Palometa	1
	Clupeidae	<i>Jenkinsia lamprotaenia</i>	Dwarf herring
<i>Jenkisia spp</i>		Unidentified herrings	16
Engraulidae	<i>Anchoa spp</i>	Unidentified	17
	<i>Anchoa lyolepsis.</i>	anchovy/fry	6
	<i>Harengula humeralis</i>	Shark mouth fry	9
		Red ear sardine	
Exocoetidae	<i>Hemiramphus brasiliensis</i>	Ballyhoo	9
Gerreidae	<i>Gerres spp.</i>	Mojarra	21
Haemulidae	<i>Haemulon aurolineatum</i>	Tomtate	1
	<i>Haemulon flavolineatum</i>	French grunt	28
	<i>Haemulon plumieri</i>	White grunt	9
Holocentridae	<i>Holocentrus spp.</i>	Squirrelfish	42
Kyphosidae	<i>Kyphosus sectatrix</i>	Bermuda chub	2
Lutjanidae	<i>Lutjanus analis</i>	Mutton snapper	5
	<i>Lutjanus apodus</i>	Schoolmaster	4
	<i>Lutjanus griseus</i>	Gray snapper	4
	<i>Lutjanus jocu</i>	Dog snapper	1
	<i>Lutjanus mahogany</i>	Mahogany snapper	5
	<i>Lutjanus synagriss</i>	Lane snapper	4
	<i>Lutjanus spp</i>	Unidentified snapper	1
	<i>Ocyurus chrysurus</i>	Yellowtail snapper	2
	Malacanthidae	<i>Malacanthus plumieri</i>	Sand tilefish
Mugilidae	<i>Mugil curema</i>	White mullet	4
Muraenidae	<i>Gymnothorax moringa</i>	Spotted moray	1
	<i>Gymnothorax funebris</i>	Green moray	1
Pomacanthidae	<i>Holocanthus tricolor</i>	Rock beauty	1
	<i>Pomacanthus paru</i>	French angelfish	1
Ostraciidae	<i>Lactophrys polygoniar</i>	Honeycomb cowfish	2
	<i>Lactophrys quadricornis</i>	Scrawled cowfish	1

Table 1. Species of Finfish Recorded in the St. Croix Shoreline Recreational Fishing Survey FY1995 to FY1999 (Continued)

FAMILY	SPECIES	COMMON NAME	FREQUENCY*
Scaridae	<i>Sparisoma chrysopteron</i>	Redtail parrotfish	1
	<i>Sparisoma rubripinne</i>	Redfin parrotfish	4
	<i>Sparisoma viride</i>	Stoplight parrotfish	5
Sciaenidae	<i>Pogonias chromis</i>	Sand drum	1
Scorpaenidae	<i>Scorpaenodes caribbaeus</i>	Reef scorpionfish	1
Serranidae	<i>Epinephelus fulvus</i>	Coney	1
	<i>Epinephelus guttatus</i>	Red hind	2
Sphyraenidae	<i>Sphyraena barracuda</i>	Barracuda	10
Synodontidae	<i>Synodus foetens</i>	Sand diver	1
Tetradontidae	<i>Sphoeroides testudineus</i>	Checkered puffer	1

\*Frequency =number of interviews in which the species was recorded

Table 2. Total Number of St. Croix Shoreline Recreational Fishermen Counted and Interviews by Area and Location from FY1995 to FY1999.

AREA	TOTAL FISHERMEN COUNTED	TOTAL FISHERMEN INTERVIEWED	LOCATION	NUMBER OF INTERVIEWS
1	338	189	Fredericksted Public Beach	20
			Fredericksted Pier	40
			Fredericksted Fish Market	42
			Dutch Beach	5
			Williams Beach	9
			Hams Bay	27
			Sprat Hall	10
			Butler Bay	18
			Fredericksted Swimming Pool	18
			2	81
Good Hope Beach	3			
3	140	22	Great Pond	13
			Longford	4
			Robin Bay	3
			Rod Bay	2
4	19	18	Grapetree	1
			Grassy Point	1
			Turner Hole	16
5	81	30	Altona Lagoon	21
			Salt River Marina	8
			Cotton Valley	1
6	32	7	Davis Bay Beach	2
			Rust-op-Twist	1
			Cane Bay	4

Table 3. St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch Per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds/angler-hour) for FY1995 to FY1999 (mean values with standard error (SE) in parenthesis).

FISCAL YEAR	EFFORT (SE)	CPUE (SE)	PPUE (SE)
1995	1.20 (0.11)	1.26 (0.22)	1.32 (0.15)
1996	1.09 (0.10)	1.80 (0.34)	1.14 (0.19)
1997	1.13 (0.17)	2.67 (0.89)	1.15 (0.25)
1998	0.42 (0.09)	2.08 (0.83)	2.76 (0.84)
1999*	1.44 (0.18)	1.66 (0.83)	1.06 (0.18)

\*Only weekends and evening samples on weekdays were sampled during FY1999.

Table 4. St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour and PPUE = pounds of fish/angler-hour) by Month for Pooled FY1995 to FY1999 data (mean values with standard error (SE) in parentheses).

MONTH	EFFORT (SE)	CPUE (SE)	PPUE (SE)
January	1.00 (0.19)	1.66 (0.69)	2.10 (0.41)
February	1.33 (0.24)	1.31 (0.50)	1.33 (0.44)
March	1.09 (0.19)	1.12 (0.48)	0.57 (0.16)
April	1.32 (0.19)	0.57 (0.21)	1.44 (0.37)
May	1.12 (0.26)	1.53 (0.49)	1.56 (0.30)
June	1.06 (0.16)	1.00 (0.45)	1.20 (0.33)
July	1.17 (0.20)	2.49 (1.15)	1.12 (0.21)
August	0.78 (0.14)	2.67 (0.82)	1.33 (0.44)
September	1.15 (0.20)	1.42 (0.62)	1.71 (0.44)
October	1.07 (0.19)	2.84 (0.90)	1.12 (0.28)
November	0.86 (0.17)	2.28 (0.97)	1.10 (0.31)
December	0.77 (0.24)	0.87 (0.58)	1.03 (0.57)

Table 5. St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour) by Area for Pooled FY1995 to FY1999 data (mean values with standard error (SE) in parentheses).

AREA	EFFORT (SE)	CPUE (SE)	PPUE (SE)
1	1.55 (0.09)	1.55 (0.21)	1.32 (0.11)
2	0.98 (0.20)	1.28 (0.53)	1.42 (0.33)
3	1.19 (0.16)	1.97 (0.54)	0.83 (0.24)
4	0.45 (0.16)	0.14 (0.10)	1.45 (0.43)
5	0.83 (0.12)	3.65 (2.63)	1.37 (0.51)
6	0.44 (0.09)	1.70 (0.80)	2.00 (1.02)

Table 6. St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour) for pooled FY1995 to FY1999 data by Time of Day (mean values with standard error (SE) in parentheses).

TIME OF DAY	EFFORT (SE)	CPUE (SE)	PPUE (SE)
AM	0.96 (0.09)	2.68 (0.74)	1.28 (0.18)
MD	0.98 (0.10)	1.56 (0.32)	1.45 (0.23)
PM	1.23 (0.12)	1.35 (0.28)	1.20 (0.15)
EV	1.37 (0.22)	0.78 (0.38)	1.22 (0.26)

Table 7. Weekday St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) by Area and Time of Day for Pooled FY1995 to FY1999 data by Area (mean values with standard error (SE) in parentheses).

AREA	TIME OF DAY			
	AM (SE)	MD (SE)	PM (SE)	EV (SE)
1	1.38 (0.16)	1.61 (0.21)	1.73 (0.16)	1.36 (0.45)
2	0.58 (0.21)	0.35 (0.13)	0.18 (0.13)	3.00 (1.32)
3	1.18 (0.39)	0.92 (0.25)	1.53 (0.33)	1.66 (0.56)
4	0.18 (0.18)	0	0	1.57 (0.68)
5	0.92 (0.28)	0.81 (0.21)	0.40 (0.15)	0.40 (0.40)
6	0.43 (0.16)	0.68 (0.24)	0.33 (0.13)	0

Table 8. Weekend St. Croix Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) by Area and Time of Day for FY1999 data (mean values with standard error (SE) in parentheses).

AREA	TIME OF DAY			
	AM (SE)	MD (SE)	PM (SE)	EV (SE)
1	1.40 (0.40)	0	1.00 (1.00)	1.00 (0.36)
2	1.00 (0.32)	2.80 (1.20)	4.25 (1.60)	1.25 (0.48)
3	0.50 (0.50)	0	0	1.33 (0.88)
4	0.67 (0.67)	0	1.00 (1.00)	0.75 (0.48)
5	1.00 (0.58)	2.00 (1.00)	1.33 (0.67)	2.33 (0.88)
6	0.50 (0.50)	0	0	0



Table 9. Estimated Total St. Croix Shoreline Recreational Fishing Effort, Number of Fish Caught, and Number of Pounds Caught for FY1995 to FY1999, Based on the Non-Uniform Shoreline Roving Creel Survey.

FISCAL YEAR	TOTAL HOURS FISHED	TOTAL FISH CAUGHT	TOTAL POUNDS CAUGHT
1995	14,876	18,744	19,636
1996	8,671	15,609	18,557
1997	4,119	10,999	6,880
1998	3,522	7,326	4,086
1999	6,266	8,613	16,034
Total	37,455	61,290	65,192

Table 10. Comparison Catch Rates of Different St. Croix Inshore Recreational Fishing Sectors (Private Boat, Shoreline, Pier, and Tournaments) Annual Harvest Rate for FY1995 to FY1999.

FISCAL YEAR		FISHING MODE			
		PRIVATE BOAT	SHORELINE	PIER	TOURNAMENT
1995	Hours	47.00	270.00	53.00	*2
	Fished*1				
	Total Catch*1	110.00	345.00	49.00	*2
1996	PPUE*3	2.32	1.28	0.92	*2
	Hours	2.50	153.00	29.50	*2
	Fished*1				
1997	Total Catch*1	2.00	117.50	15.00	*2
	PPUE*3	0.80	0.77	0.77	*2
	Hours	4.00	27.00	10.00	*2
1998	Fished*1				
	Total Catch*1	0	37.00	1.00	*2
	PPUE*3	0	1.23	0.50	*2
1999	Hours	4.00	10.00	27.00	292.00
	Fished*1				
	Total Catch*1	3.00	50.00	15.50	10.60
1999	PPUE*3	0.75	1.85	1.55	0.04
	Hours	7.00	49.50	33.00	264.00
	Fished*1				
1999	Total Catch*1	8.00	44.00	32.00	19.60
	PPUE*3	1.14	0.89	0.97	0.07
	Hours				

\*notes:

- Hours fished and total catches are totals from logsheets, shore surveys and personal interviews only, not estimated totals for each individual sector (such as private boats).
- No fishing tournaments organized.
- For private boats and tournaments PPUE = pounds of fish/boat-hour; for shoreline and piers PPUE = pounds of fish/angler-hour.

Table 11. St. Croix Offshore Recreational Fishing Total Catch (pounds) and Catch per Unit Effort (PPUE = pounds of fish/boat-hour) for the Twelve Most Commonly Caught Species (based on logbooks and personal interviews) for FY1995 to FY1999 combined for Charter and Private Boats\*1

SPECIES	CHARTER		PRIVATE		TOTAL	
	CATCH*2	PPUE	CATCH*2	PPUE	CATCH*2	PPUE
<i>Coryphaena hippurus</i>	15898.50	1.99	2715.00	1.00	18613.50	1.7431
<i>Makaira nigricans</i>	7685.00	0.96	1940.00	0.72	9625.00	0.9013
<i>Acanthocybium solandri</i>	6214.50	0.78	3225.00	1.19	9439.50	0.8840
<i>Thunnus albacares</i>	578.00	0.07	432.70	0.16	1010.70	0.0946
<i>Thunnus atlanticus</i>	110.00	0.01	682.00	0.25	792.00	0.0742
<i>Sphyraena barracuda</i>	234.00	0.03	499.00	0.18	733.00	0.0686
<i>Scomberomorus cavalla</i>	284.00	0.04	161.00	0.06	445.00	0.0417
<i>Tetraprerus albidus</i>	220.00	0.03	180.00	0.07	400.00	0.0375
<i>Scomberomorus regalis</i>	323.00	0.04	2.00	0	325.00	0.0304
<i>Euthynnus alleteratus</i>	20.00	0	31.00	0.01	51.00	0.0048
<i>Euthynnus pelamis</i>	41.00	0.01	2.00	0	43.00	0.0040
<i>Istiophorus platypterus</i>	0	0	8.00	0	8.00	0.0007
Total	31608.00		9877.70		41485.70	

	CHARTER	PRIVATE	TOTAL
No. Species per Trip	0.70	1.31	0.82
No. Fish per Trip	1.58	3.57	1.97
Total Pounds per Trip	44.67	58.04	47.48
Total Number of Hours	7975.50	2703.00	10678.50
Number of Interviews	760.00	499.00	1259.00

\*notes:

1. Tournament data not included.
2. Total catches are sums from logsheets and personal interviews, not estimated totals for each sector.

Table 12. Annual St. Croix Offshore Recreational Fishing Landings (pounds\*1) and Catch per Unit Effort (pounds/boat-hour) reported for the Twelve Most Commonly Caught Species (from logbooks and personal interviews) for FY1995 to FY1999\*2.

SPECIES	1995		1996		1997		1998		1999	
	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE
<i>Coryphaena hippurus</i>	2234	1.71	3221	2.22	5401	1.94	2264	1.03	5493	1.86
<i>Acanthocybium solandri</i>	409	0.31	1115	0.77	3648	1.31	3231	1.47	2836	0.96
<i>Thunnus albacares</i>	190	0.15	12	0.01	20	0.01	260	0.12	528	0.18
<i>Thunnus atlanticus</i>	0	0	71	0.05	114	0.04	320	0.15	287	0.10
<i>Euthynnus alleteratus</i>	0	0	0	0	0	0	21	0.01	30	0.01
<i>Euthynnus pelamis</i>	0	0	9	0.01	129	0.05	159	0.07	28	0.01
<i>Makaira nigricans</i>	0	0	700	0.48	1125	0.40	4925	2.24	2100	0.71
<i>Scomberomorus cavalla</i>	0	0	0	0	0	0	117	0.05	232	0.08
<i>Scomberomorus regalis</i>	0	0	2	0	0	0	0	0	0	0
<i>Istiophorus platypterus</i>	0	0	8	0.01	0	0	0	0	0	0
<i>Tetraprerus albidus</i>	0	0	60	0.04	280	0.10	0	0	0	0
<i>Sphyrna barracuda</i>	0	0	72	0.05	224	0.08	63	0.03	237	0.08
Number of Interviews	N=274		N=266		N=496		N=402		N=488	
Total Hours Fished	1373.0		1451.0		2782.0		2195.0		2958.00	
	0		0		0		0			

\*notes:

1. Total (catch) weights above are sums from logsheets and personal interviews, not estimated total weights for the entire sector.
2. Tournament data is not included above.

Table 13. St. Croix Offshore Recreational Fishery Average Weight (Pounds) of Fish Caught for the Twelve Most Commonly Caught Species from FY1995 to FY1999 from Logbooks and Personal Interviews (mean values with standard error (SE) in parentheses)\*1

FISCAL YEAR	1995	1996	1997	1998	1999
<b>SPECIES</b>					
<i>Coryphaena hippurus</i>	20.88 (1.16)	23.89 (0.92)	21.48 (0.79)	21.62 (1.10)	21.25 (0.62)
<i>Acanthocybium solandri</i>	24.06 (2.63)	27.97 (1.89)	25.36 (1.15)	27.69 (2.48)	26.04 (1.23)
<i>Euthynnus alleteratus</i>	*2	*2	*2	11.00 (9.5)	15.00 (3)
<i>Euthynnus pelamis</i>	9.00 (0)	*2	21.00 (0)	19.8 (3.9)	8.67 (3.33)
<i>Scomberomorus regalis</i>	*2	*2	*2	*2	*2
<i>Istiophorus platypterus</i>	*2	8.00 (0)	*2	*2	*2
<i>Tetraprerus albidus</i>	*2	60.00 (0)	53.30 (5.88)	60 (0)	*2
<i>Thunnus albacares</i>	21.11 (1.74)	12.00 (0)	20.00 (1)	56.5 (26.5)	37.33 (6.87)
<i>Thunnus atlanticus</i>	*2	5.92 (0.65)	3.40 (0.43)	3.8 (2.89)	5.25 (1.03)
<i>Makaira nigricans</i>	155.00 (16.6)	140.00 (60)	140.62 (26.8)	205.00 (29.1)	190.91 (22.9)
<i>Scomberomorus cavalla</i>	*2	6.50 (0.01)	18 (3.15)	13.00 (1.25)	14.14 (1.99)
<i>Sphyraena barracuda</i>	*2	6.14 (0.77)	9.25 (0.98)	13.50 (4.01)	11.27 (1.38)
Number of Interviews	N=92	N=134	N=238	N=280	N=201

\*notes:

1. Tournament data not included.
2. Species not reported.

Table 14. Summary results of the 1996 Third Annual St. Croix Golden Hook Challenge Fishing Tournament, St. Croix; September 26-29, 1996 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
14	288	10	1485	0.03	5.15
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	1	35	0.01	0.12
<i>Coriphaera hippurus</i>	Dolphin	2	50	0.01	0.17
<i>Makaira nigricans</i>	Blue marlin	7	1400	0.03	4.86

Table 15. Summary results of the 1997 Fourth Annual St. Croix Golden Hook Challenge Fishing Tournament, St. Croix; October 11, 1997 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
14	378	39	2061	0.106	5.45
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	21	424.2	0.050	1.120
<i>Thunnus albacares</i>	Blackfin tuna	1	17.2	0.002	0.045
<i>Coriphaera hippurus</i>	Dolphin	7	135.2	0.018	0.350
<i>Makaira nigricans</i>	Blue marlin	9	1475	0.023	3.900
<i>Scomberomorus caballa</i>	Kingfish	1	9.4	0.002	0.024

Table 16. Summary results of the 1998 First St. Croix Vitellcelular Boyscout Handline Tournament, St. Croix; August 23, 1998 (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
73	292	31	10.05	0.106	0.03

Catch by Species						
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE	
<i>Holocentrus adscencionis</i>	Long spine squirrel fish	16	4.80	0.050	0.020	
<i>Haemulon flavolineatum</i>	French grunt	9	2.70	0.030	0.010	
<i>Halichoeres bivittatus</i>	Slippery dick	3	1.00	0.010	0.010	
<i>Acanthoblemaria spp</i>	Unknown Blennie	1	0.30	0.003	0.001	
<i>Microspathodon chrysurus</i>	Yellowtail damselfish	1	0.25	0.003	0.002	
<i>Scarus viride</i>	Stoplight parrotfish	1	1.00	0.003	0.003	

Table 17. Summary results of the 1998 Fifth Annual St. Croix Golden Hook Challenge Fishing Tournament, St. Croix; November 10-12, 1998 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
12	312	121	1969.4	0.106	16.27

Catch per Species						
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE	
<i>Acanthocybium solandri</i>	Wahoo	71	1393	0.230	4.46	
<i>Thunnus atlanticus</i>	Blackfin tuna	2	16	0.006	0.05	
<i>Coryphaena hippurus</i>	Dolphin	25	261	0.080	0.84	
<i>Makaira nigricans</i>	Blue marlin	1	150	0.003	0.48	
<i>Scomberomorus cavalla</i>	King fish	1	9.4	0.003	0.03	
<i>Sphyraena barracuda</i>	Barracuda	20	124	0.064	0.39	
<i>Thunnus albacares</i>	Yellowfin tuna	1	16	0.003	0.05	

Table 18. Summary results of the 1999 Women Finfinder Fishing Tournament, St. Croix; June 19, 1999 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
12	72	17	381.4	0.23	5.29

Catch per Species						
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE	
<i>Acanthocybium solandri</i>	Wahoo	3	63.2	0.042	0.870	
<i>Thunnus atlanticus</i>	Blackfin tuna	1	3	0.013	0.041	
<i>Coryphaena hippurus</i>	Dolphin	3	68.4	0.042	0.950	
<i>Thunnus obtusus</i>	Bigeye tuna	1	16.0	0.013	0.220	
<i>Scomberomorus regalis</i>	Spanish mackerel	1	6	0.013	0.083	
<i>Ebicentris bipinnulata</i>	Rainbow runner	1	3	0.013	0.041	
<i>Makaira nigricans</i>	Blue marlin	1	165	0.013	2.290	
<i>Scomberomorus maculata</i>	Kingfish	1	16.8	0.013	0.230	
<i>Sphyraena barracuda</i>	Barracuda	4	37	0.055	0.510	
<i>Scomberomorus regalis</i>	Cero	1	3	0.013	0.014	

Table 19. Summary results of the 1999 Second St. Croix Vitellcelular Boy Scout Handline Tournament, St. Croix; August 17, 1999 (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
66	264	59	9.63	0.22	0.04

Catch by Species						
SPECIES	COMMON NAME	TOTAL CAUGHT	TOTAL POUNDS	CPUE	PPUE	
<i>Haemulon flavolineatum</i>	French grunt	23	2.90	0.087	0.010	
<i>Ocyurus chrysurus</i>	Yellowtail snapper	8	2.02	0.031	0.007	
<i>Holocentrus spp.</i>	Squirrelfish	5	0.82	0.019	0.003	
<i>Malacoctenus spp.</i>	Unknown Blennie	5	0.34	0.019	0.002	
<i>Halichoeres bivittatus</i>	Slippery dick	5	0.21	0.019	0.001	
<i>Eucinostomus jonensis</i>	Slender mojarra	3	0.87	0.011	0.003	
<i>Trachinotus falcatus</i>	Pompano	3	0.37	0.011	0.001	
<i>Lutjanus analis</i>	Mutton snapper	2	1.12	0.007	0.001	
<i>Lutjanus mahogany</i>	Mahogany snapper	1	0.10	0.004	0.001	
<i>Lutjanus apodus</i>	School master	1	0.10	0.004	0.001	
<i>Stegastes spp.</i>	Damselfish	1	0.01	0.004	0.001	
<i>Gymnothorax moringa</i>	Purplemouth moray	1	0.77	0.004	0.001	

Table 20. Summary results of the 1999 Sixth Annual St. Croix Golden Hook Challenge Fishing Tournament, St. Croix; November 5-7, 1999 (CPUE = number of fish/boat-hour), PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
12	216	27	1080.4	0.12	5.01
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	8	211	0.037	0.970
<i>Thunnus atlanticus</i>	Blackfin tuna	1	75	0.004	0.347
<i>Coryphaena hippurus</i>	Dolphin	10	144	0.046	0.670
<i>Makaira nigricans</i>	Blue marlin	3	575	0.014	2.670
<i>Scomberomorus cavalla</i>	Kingfish	51	75.4	0.240	0.350

Table 21. Summary results of the 2000 First Annual St. Croix Golden Hook Dolphin Fishing Tournament, St. Croix; March 4, 2000 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
13	117	27	909.4	0.23	7.77
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	2	22.6	0.017	0.19
<i>Coryphaena hippurus</i>	Dolphin	19	250.8	0.160	2.14
<i>Makaira nigricans</i>	Blue marlin	1	636.0	0.008	5.43



Table 22. Summary results of the 2000 First Annual St. Croix Golden Hook Guys and Gals Shootout Fishing Tournament, St. Croix; May 20-21, 2000 (CPUE = number of fish/boat-hour), PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
9	144	26	427.6	0.18	2.96

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	6	126.0	0.042	0.870
<i>Coryphaena hippurus</i>	Dolphin	7	156.2	0.048	1.080
<i>Scomberomorus cavalla</i>	Kingfish	13	145.4	0.090	1.010

Table 23. Summary results of the 2000 First Annual St. Croix Golden Hook Marlin Fishing Tournament, St. Croix; August 12-13, 2000 (CPUE = number of fish/boat-hour) and PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
9	144	2	185	0.014	1.28

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solandri</i>	Wahoo	1	35	0.006	0.24
<i>Makaira nigricans</i>	Blue marlin	1	150	0.006	1.04

Table 24. Species of Finfish Recorded in the St. Thomas Shoreline Recreational Fishing Survey from FY 1995 to FY1999.

FAMILY	SPECIES	COMMON NAME	FREQUENCY*
Albulidae	<i>Megalops atlanticus</i>	Tarpon	2
Balistidae	<i>Balistes vetula</i>	Queen triggerfish	1
Belonidae	<i>Tylosurus crocodilus</i>	Houndfish	1
Carangidae	<i>Caranx ruber</i>	Barjack	10
	<i>Caranx spp</i>	Unidentified jack	17
	<i>Caranx crysos</i>	Blue runner	1
	<i>Caranx latus</i>	Horse eye jack	1
Clupeidae	<i>Jenkisia spp</i>	Unidentified herrings	1
Dasyatidae	<i>Dasyatis americana</i>	Southern stingray	2
Engraulidae	<i>Anchoa spp</i>	Unidentified	2
	<i>Harengula humeralis</i>	anchovy/fry	1
		Red ear sardine	
Exocoetidae	<i>Hemiramphus brasiliensis</i>	Ballyhoo	1
Haemulidae	<i>Haemulon aurolineatum</i>	Tomtate	1
	<i>Haemulon plumieri</i>	White grunt	11
	<i>Haemulon spp</i>	Unidentified grunts	8
Holocentridae	<i>Holocentrus spp.</i>	Squirrelfish	8
Kyphosidae	<i>Kyphosus sectatrix</i>	Bermuda chub	1
Labridae	<i>Halichoeres garnoti</i>	Yellowhead wrasse	1
Lutjanidae	<i>Lutjanus griseus</i>	Gray snapper	1
	<i>Lutjanus synagris</i>	Lane snapper	5
	<i>Lutjanus spp</i>	Unidentified snapper	11
	<i>Ocyurus chrysurus</i>	Yellowtail snapper	20
Mugilidae	<i>Mugil curema</i>	White mullet	1
Scaridae	<i>Scarus aurofrenatum</i>	Redband parrotfish	4
	<i>Sparisoma chrysopterum</i>	Redtail parrotfish	3
	<i>Scarus taeniopterus</i>	Princess parrotfish	1
	<i>Sparisoma viride</i>	Stoplight parrotfish	1
Sciaenidae	<i>Pogonias chromis</i>	Sand drum	1
Serranidae	<i>Epinephelus cruentatus</i>	Graysby	1
	<i>Epinephelus fulvus</i>	Coney	4
	<i>Epinephelus guttatus</i>	Red hind	2
Sparidae	<i>Calamus calamus</i>	Saucereye porgy	1
Sphyraenidae	<i>Sphyraena barracuda</i>	Barracuda	9
Tetradontidae	<i>Sphoeroides testudineus</i>	Checkered puffer	6

\*Frequency =number of interviews in which the species was recorded

Table 25. Total Number of St. Thomas Shoreline Recreational Fishermen Counted and Interviews by Area and Location from FY1995 to FY1999

AREA	TOTAL FISHERMEN COUNTED	TOTAL FISHERMEN INTERVIEWED	LOCATION	NUMBER OF INTERVIEWS
1	246	44	Red Hook Harbor	13
			Sapphire Marine	8
			Latitude 18	11
			National Park Service Dock	5
			Water Bay	1
			Coki Point	5
			Cabrita Point	1
2	33	15	Waterfront (Charlotte Amalie)	15
3	177	65	Crown Bay Cruise ship dock	12
			Crown Bay Marina	18
			Aveys' Marine	1
			UVI Dock	19
			Brewers Bay	5
			Black Point	1
			Botany Bay	1
			East Gregory Dock	2
			Fortuna Bay	1
			Lindbergh Bay	1
			Tropical Marine	2
			Water Bay	1
			Villa Olga	1
			4	23
			Stumpy Bay	1
			Hull Bay	1
			Compass Point	1
5	82	18	Tutu Bay	1
			Mandahl Bay	7
			American Yacht Harbot	1
			Magens Bay	4
			Cruz Bay	3
			Sapphire Beach	1
			Fish Hawk Marina	1

Table 26. St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch Per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds/angler-hour) for FY1995 to FY1999 (mean values with standard error (SE) in parenthesis).

FISCAL YEAR	EFFORT (SE)	CPUE (SE)	PPUE (SE)
1995	0.94 (0.14)	3.07 (0.67)	1.28 (0.36)
1996	1.42 (0.15)	0.67 (0.62)	0.50 (0.20)
1997	2.10 (0.49)	3.72 (1.16)	1.65 (0.79)
1998	1.34 (0.27)	1.75 (0.46)	0.85 (0.32)
1999*	1.10 (0.30)	2.46 (1.73)	0.60 (0.28)

\*Only weekends and evening samples on weekdays were sampled during FY1999.

Table 27. St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour and PPUE = pounds of fish/angler-hour) by Month for Pooled FY1995 to FY1999 data (mean values with standard error (SE) in parentheses).

MONTH	EFFORT (SE)	CPUE (SE)	PPUE (SE)
January	1.29 (0.32)	2.43 (0.72)	0.80 (0.52)
February	0.54 (0.14)	1.50 (0.71)	0.61 (0.41)
March	2.19 (0.43)	3.10 (1.12)	1.21 (0.46)
April	2.48 (0.46)	3.45 (0.98)	1.58 (0.60)
May	1.36 (0.31)	3.03 (0.80)	0.47 (0.23)
June	1.23 (0.26)	4.31 (1.56)	0.64 (0.23)
July	0.63 (0.20)	2.11 (1.24)	0
August	0.78 (0.33)	2.14 (1.05)	1.13 (0.34)
September	0.51 (0.24)	1.25 (0.75)	1.18 (0.43)
October	0	0	0
November	0.39 (0.19)	2.00 (1.15)	2.22 (1.28)
December	1.07 (0.29)	1.08 (0.69)	1.35 (0.47)

Table 28. St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour) by Area for Pooled FY1995 to FY1999 data (mean values with standard error (SE) in parentheses).

AREA	EFFORT (SE)	CPUE (SE)	PPUE (SE)
1	1.83 (0.21)	4.71 (1.34)	0.99 (0.33)
2	0.46 (0.10)	3.59 (1.19)	0.66 (0.44)
3	1.93 (0.28)	1.43 (0.27)	0.84 (0.26)
4	0.61 (0.27)	4.03 (1.11)	0.77 (0.54)
5	0.97 (0.28)	2.10 (0.51)	2.06 (0.60)

Table 29. St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) and Catch per Unit Effort (CPUE = number of fish/angler-hour, PPUE = pounds of fish/angler-hour) for pooled FY1995 to FY1999 data by Time of Day (mean values with standard error (SE) in parentheses).

TIME OF DAY	EFFORT (SE)	CPUE (SE)	PPUE (SE)
AM	1.16 (0.20)	3.68 (1.16)	1.63 (0.48)
MD	1.42 (0.29)	2.48 (0.67)	1.00 (0.35)
PM	1.07 (0.23)	2.77 (0.46)	2.06 (0.51)
EV	1.51 (0.20)	3.40 (0.99)	1.16 (0.58)

Table 30. Weekday St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) by Area and Time of Day for Pooled FY1995 to FY1999 data by Area (mean values with standard error (SE) in parentheses).

AREA	TIME OF DAY			
	AM (SE)	MD (SE)	PM (SE)	EV (SE)
1	1.95 (0.36)	1.04 (0.30)	2.54 (0.45)	1.37 (0.60)
2	0.17 (0.10)	0.53 (0.26)	0.73 (0.20)	0.58 (0.40)
3	1.80 (0.65)	1.26 (0.61)	1.44 (0.36)	2.45 (0.60)
4	0.19 (0.13)	1.56 (0.87)	0.22 (0.15)	0
5	0.39 (0.20)	1.14 (0.78)	1.86 (0.78)	0.50 (0.37)

Table 31. Weekend St. Thomas Shoreline Recreational Fishing Effort (number of fishers counted/survey-hour) by Area and Time of Day for FY1999 data (mean values with standard error (SE) in parentheses).

AREA	TIME OF DAY			
	AM (SE)	MD (SE)	PM (SE)	EV (SE)
1	4.83 (3.83)	5.60 (2.48)	4.44 (1.77)	5.64 (2.79)
2	0	0.05 (0.05)	2.50 (0.50)	0.57
3	0.05 (0.05)	1.17 (0.54)	2.00 (1.52)	5.40 (2.28)
4	0	0.78 (0.70)	1.50 (1.50)	0
5	0.68 (0.46)	0	1.33 (0.69)	0

Table 32. Estimated Total St. Thomas Shoreline Recreational Fishing Effort, Number of Fish Caught, and Number of Pounds Caught for FY1995 to FY1999, Based on the Non-Uniform Shoreline Roving Creel Survey.

FISCAL YEAR	TOTAL HOURS FISHED	TOTAL NUMBER CAUGHT	TOTAL POUNDS CAUGHT
1995	5253	16126	6829
1996	8538	5720	12806
1997	1103	4104	1875
1998	556	973	1112
1999	4446	13993	8883
Total	19896	40916	31505

Table 33. Comparison Catch Rates of Different St. Thomas Inshore Recreational Fishing Sectors (Private Boat, Shoreline, Pier, and Tournaments) Annual Harvest Rate for FY1995 to FY1999.

FISHING YEAR		FISHING MODE				
		PRIVATE BOAT	SHORELINE	PIER	TOURNAMEN T	CHARTER
1995	Hours Fished*1	47.50	40.00	64.00	472.00	4.50
	Total Catch*1	162.00	14.00	90.00	2435.00	40.00
	PPUE*2	3.41	0.35	1.41	5.16	8.89
1996	Hours Fished*1	69.00	36.75	20.00	372.00	431.00
	Total Catch*1	342.00	46.00	7.00	2667.00	5354.00
	PPUE*2	4.96	1.25	0.35	7.17	12.42
1997	Hours Fished*1	21.00	5.25	26.05	787.00	116.00
	Total Catch*1	320.00	7.00	19.00	3009.00	1030.00
	PPUE*2	15.24	1.33	0.73	3.82	8.88
1998	Hours Fished*1	11.00	18.00	12.00	482.00	4.00
	Total Catch*1	32.00	15.00	5.00	2361.00	30.00
	PPUE*2	2.91	0.83	0.42	4.90	7.50
1999	Hours Fished*1	1.00	18.00	12.00	373.00	*3
	Total Catch*1	1.00	24.00	1.00	52.50	*3
	PPUE*2	1.00	1.33	0.08	0.14	*3

\*notes:

- Hours fished and total catches are totals from logsheets, shore surveys and personal interviews only. They are not estimated totals for each individual sector (such as private boats).
- For private boats and tournaments PPUE = pounds of fish/boat-hour; for shoreline and piers PPUE = pounds of fish/angler-hour.
- Not sampled.

Table 34. St. Thomas Offshore Recreational Fishing Total Catch (pounds) and Catch per Unit Effort (PPUE = pounds of fish/boat-hour) for the Twelve Most Commonly Caught Species (based on logbooks and personal interviews) for FY1995 to FY1999 combined for Charter and Private Boats\*1

SPECIES	CHARTER		PRIVATE		TOTAL	
	CATCH*2	PPUE	CATCH*2	PPUE	CATCH*2	PPUE
<i>Coryphaena hippurus</i>	3201.00	0.41	479.00	0.08	3680.00	0.270
<i>Makaira nigricans</i>	135085.00	17.12	125195.00	21.85	260280.00	19.109
<i>Acanthocybium solanderi</i>	2084.00	0.26	590.00	0.10	2674.00	0.196
<i>Thunnus albacares</i>	1173.00	0.15	187.00	0.03	1360.00	0.100
<i>Thunnus atlanticus</i>	950.00	0.12	100.50	0.02	1050.50	0.077
<i>Sphyraena barracuda</i>	1175.00	0.15	118.00	0.02	1293.00	0.095
<i>Scomberomorus cavalla</i>	1120.00	0.14	154.00	0.03	1274.00	0.094
<i>Tetraprurus albidus</i>	1510.00	0.19	195.00	0.03	1705.00	0.125
<i>Scomberomorus regalis</i>	159.00	0.02	0	0	159.00	0.012
<i>Euthynnus alleteratus</i>	209.50	0.03	42.20	0.01	251.70	0.018
<i>Euthynnus pelamis</i>	61	0.01	0	0	61.00	0
<i>Istiophorus platypterus</i>	185.00	0.02	160.00	0.03	345.00	0.025
Total	146912.50		127220.70		274133.20	

	CHARTER	PRIVATE	TOTAL
No. Species per Trip	1.13	0.79	0.82
No. Fish per Trip	2.54	1.62	1.97
Total Pounds per Trip	253.10	282.50	47.48
Total Number of Hours	7891.00	5730.00	13621.00
Number of Interviews	1099.00	735.00	1834.00

notes:

1. Tournament data not included.
2. Total catches are sums from logsheets and personal interviews, not estimated totals for each sector.

Table 35. Annual St. Thomas Offshore Recreational Fishing Landings (pounds\*1) and Catch per Unit Effort (pounds/boat-hour) reported for the Twelve Most Commonly Caught Species (from logbooks and personal interviews) for FY1995 to FY1999\*2.

FISHING YEAR \ SPECIES	1995		1996		1997		1998		1999	
	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE	TOTAL WEIGHT	PPUE
<i>Coryphaena hippurus</i>	72	0.07	2571	0.58	498	0.09	0	0	0	0
<i>Acanthocybium solanderi</i>	471	0.44	1660	0.38	1037	0.18	45	0.02	0	0
<i>Thunnus albacares</i>	265	0.25	1020	0.23	20	0	55	0.02	0	0
<i>Thunnus atlanticus</i>	35	0.03	794	0.18	210	0.04	16	0.01	0	0
<i>Euthynnus alleteratus</i>	13	0.01	85	0.02	166	0.03	0	0	0	0
<i>Euthynnus pelamis</i>	0	0	16	0	45	0.01	0	0	0	0
<i>Makaira nigricans</i>	20825	19.65	62955	14.27	118280	20.73	57545	24.32	675	8.77
<i>Scomberomorus cavalla</i>	0	0.00	533	0.12	741	0.13	0	0	0	0
<i>Scomberomorus regalis</i>	0	0	101	0.02	26	0	0	0	0	0
<i>Istiophorus platypterus</i>	70	0.07	150	0.03	150	0.03	25	0	0	0
<i>Tetraprurus albidus</i>	280	0.26	375	0.09	1010	0.18	40	0	0	0
<i>Sphyræna barracuda</i>	51	0.05	589	0.13	585	0.10	0	0	0	0
Number of Interviews	N=144		N=616		N=616		N=287		N=9	
Total Hours Fished	1060.0		4411.0		5707.0		2366.0		77.00	
	0		0		0		0			

\*notes:

1. Total (catch) weights above are sums from logsheets and personal interviews, not estimated total weights for the entire sector.
2. Tournament data is not included above.



Table 36. St. Thomas Offshore Recreational Fishery Average Weight (Pounds) of Fish Caught for the Twelve Most Commonly Caught Species from FY1995 to FY1999 from Logbooks and Personal Interviews (mean values with standard error (SE) in parentheses)\*1

FISHING YEAR	1995	1996	1997	1998	1999
<b>SPECIES</b>					
<i>Coryphaena hippurus</i>	10.29 (0.6)	11.21 (1.4)	15.13 (3.7)	*2	*2
<i>Acanthocybium solanderi</i>	33.64 (7.2)	32.41 (2.1)	22.71 (2.5)	45.00 (0)	*2
<i>Thunnus albacares</i>	65.00 (25.2)	42.00 (5)	20.00 (0)	27.50 (7.5)	*2
<i>Thunnus atlanticus</i>	8.41 (0)	9.64 (2.6)	8.09 (1.8)	7.50 (0)	*2
<i>Makaira nigricans</i>	236.65 (13.5)	241.00 (7.2)	261.68 (4.9)	258.00 (12.7)	168.00 (60.7)
<i>Scomberomorus cavalla</i>	*2	19.85 (2.6)	15.00 (1.8)	*2	*2
<i>Euthynnus alleteratus</i>	*2	3.77 (0.5)	5.05 (1.6)	*2	*2
<i>Euthynnus pelamis</i>	*2	8.00 (0)	12.50 (0.5)	*2	*2
<i>Scomberomorus regalis</i>	*2	4.57 (0.8)	2.57 (0.5)	*2	*2
<i>Sphyraena barracuda</i>	9.25 (1.1)	8.40 (1.9)	11.12 (1.5)	*2	*2
<i>Istiophorus platypterus</i>	35.00 (5)	30.00 (0)	50.00 (10)	25.00 (0)	*2
<i>Tetrapterus albidus</i>	56.00 (10.9)	46.80 (4.8)	63.12 (3.6)	40.00 (0)	*2
Number of Interviews	N=80	N=327	N=485	N=134	N=3

\*notes:

1. Tournament data not included.
2. Species not reported.

Table 37. Summary results of the 1996 Dolphin Fishing Tournament, St. Thomas, April 14, 1996 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
24	159	34	529.8	0.21	3.33

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	1	36.2	0.01	0.23
<i>Thunnus atlanticus</i>	Blackfin tuna	4	39.2	0.02	0.24
<i>Coryphaena hippurus</i>	Dolphin	14	258	0.08	1.62
<i>Scomberomorus regalis</i>	Cero	3	20.8	0.01	0.10
<i>Scomberomorus cavalla</i>	King fish	12	175.6	0.07	1.13

Table 38. Summary results of the 1996 Mother's Day Fishing Tournament, St. Thomas, May 16, 1996 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
13	59	506	237.76	8.57	4.02

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Holocentrus spp</i>	Squirrelfish	126	36.4	2.13	0.60
<i>Epinephelus guttatus</i>	Red hind	85	58.6	1.44	0.99
<i>Ocyurus chrysurus</i>	Yellowtail snapper	47	13.21	0.80	0.22
<i>Epinephelus fulvus</i>	Coney	47	26.5	0.80	0.44
<i>Epinephelus fulvus</i>	Graysby	39	15.8	0.66	0.27
<i>Balistes vetula</i>	Queen triggerfish	26	25.6	0.44	0.44
<i>Lutjanus vivanus</i>	Silk snapper	25	1.9	0.42	0.03
<i>Malacanthus plumieri</i>	Sand tilefish	17	10.82	0.29	0.18
<i>Haemulon melanurum</i>	Cottonwick	16	2.51	0.27	0.004
<i>Haemulon plumieri</i>	White grunt	15	9.8	0.25	0.02
<i>Calamus callamus</i>	Saucereye porgy	15	9.18	0.25	0.02
<i>Caranx crysos</i>	Blue runner	13	13.23	0.22	0.22
<i>Lutjanus synagris</i>	Lane snapper	13	6.42	0.22	0.01
<i>Halichoeres radiatus</i>	Yellowhead wrasse	8	6.30	0.14	0.01
<i>Gymnotorax moringas</i>	Purplemouth moray	5	0.30	0.08	0.08
<i>Bothus lunatus</i>	Tropical flounder	5	0.30	0.08	0.08
<i>Pseuduponeus maculatus</i>	Spotted goatfish	1	0.29	0.02	0.02
<i>Aluterus schoepfi</i>	Orange spotted filefish	1	0.30	0.02	0.02
<i>Sparisoma chrysopterum</i>	Redfin parrotfish	1	0.30	0.02	0.02

Table 39. Summary results of the 1996 Fathers Day Fishing Tournament, St. Thomas, June 9, 1996 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
24	137	131	1028.8	0.95	7.5

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	85	688	0.62	5.02
<i>Scomberomorus cavalla</i>	King mackerel	30	188	0.22	1.37
<i>Euthynnus alletteratus</i>	Little tunny	4	25.4	0.03	0.18
<i>Remora remore</i>	Remora	2	4.6	0.01	0.03
<i>Scomberomorus regalis</i>	Cero	8	115	0.06	0.83
<i>Caranx latus</i>	Horse-eye jack	1	3.6	0.01	0.026
<i>Coryphaena hippuruss</i>	Dolphin	1	4.2	0.01	0.03

Table 40. Summary results of the 1996 July Open Fishing Tournament (Inshore Category), St. Thomas, July 4 and July 14, 1996 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
18	276	62		0.22	

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL WEIGHT	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	34	*	0.12	*
<i>Scomberomorus cavalla</i>	King mackerel	8	*	0.03	*
<i>Euthynnus alletteratus</i>	Little tunny	5	*	0.02	*
<i>Katsuwonus pelamis</i>	Skipjack	3	*	0.01	*
<i>Scomberomorus regalis</i>	Cero	10	*	0.04	*
<i>Caranx hippos</i>	Crevalle jack	1	*	0.004	*
<i>Caranx rubers</i>	Bar jack	1	*	0.004	*

\*Individual fish weights not recorded.

Table 41. Summary results of the 1996 July Open Fishing Tournament (Offshore Category), St. Thomas, July 5-6, 1996 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
20	360	10	3418.8	0.027	9.49
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Tetrapterus albidus</i>	Dolphin	1	45	0.002	0.125
<i>Makaira nigricans</i>	Blue marlin	9	3373.8	0.025	9.37

Table 42. Summary results of the 1996 American Yacht Harbor Fishing Tournament, St. Thomas, July 26-28, 1996 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
19	493	68	15662	0.26	31.7
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	1	47	0.002	0.09
<i>Makaira nigricans</i>	Blue marlin	62	14865	0.125	30.19
<i>Tetrapterus albidus</i>	White marlin	1	60	0.002	0.12
<i>Galeocerds cuvieri</i>	Tiger shark	1	500	0.002	1.01
<i>Thunnus albacares</i>	Yellowfin tuna	3	190	0.006	0.38

Table 43. Summary results of the 1996 Atlantic Blue Marlin Open Fishing Tournament, St. Thomas, August 25-29, 1996 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
16	493	38	10300	0.07	20.89
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Makaira nigricans</i>	Blue marlin	38	10300	0.07	20.89

Table 44. Summary results of the 1996 September Moon Fishing Tournament, St. Thomas, September 1-3, 1996 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
8	493	19	4625	0.04	9.38

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Makaira nigricans</i>	Blue marlin	19	4625	0.04	9.38

Table 45. Summary results of the 1996 Wahoo Fishing Tournament, St. Thomas, November 11, 1996 (CPUE = number of fish/boat-hour, PPUE = pounds of fish/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
20	135	32	613.2	0.23	4.54

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	12	351	0.088	2.60
<i>Thunnus atlanticus</i>	Blackfin tuna	2	17	0.014	0.13
<i>Coryphaena hippurus</i>	Dolphin	2	14.6	0.014	0.11
<i>Elagatis bipinnulata</i>	Rainbow runner	1	2.8	0.007	0.02
<i>Scomberomorus cavalla</i>	Kingfish	5	78.8	0.037	0.58
<i>Sphyraena barracuda</i>	Barracuda	7	61	0.052	0.45
<i>Thunnus albacares</i>	Yellowfin tuna	3	88	0.020	0.65

Table 46. Summary results of the 1997 Sweetheart's Fishing Tournament, St. Thomas, March 9, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
3	17	1	7	0.058	0.41

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Scomberomorus cavalla</i>	Kingfish	1	7	0.058	0.41

Table 47. Summary results of the 1997 Dolphin Fishing Tournament, St. Thomas, April 19, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
24	157	115	1994.2	0.73	12.7

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	9	221.6	0.078	1.92
<i>Thunnus atlanticus</i>	Blackfin tuna	2	15.8	0.017	0.14
<i>Coryphaena hippurus</i>	Dolphin	94	1533	0.820	13.33
<i>Scomberomorus regalis</i>	Cero	1	4	0.008	0.034
<i>Thunnus alallunga</i>	Yellowfin tuna	3	118.4	0.026	1.03
<i>Scomberomorus cavalla</i>	King fish	6	101.4	0.052	0.88

Table 48. Summary results of the 1997 Mother's Day Fishing Tournament, St. Thomas, May 4, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
9	47	295	161.65	6.27	0.54

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Holocentrus spp</i>	Squirrelfish	96	31.2	2.04	0.66
<i>Epinephelus guttatus</i>	Red hind	30	23.6	0.49	0.50
<i>Ocyurus chrysurus</i>	Yellowtail snapper	6	4.1	0.13	0.08
<i>Epinephelus fulvus</i>	Coney	49	29.5	1.04	0.62
<i>Epinephelus cruentatus</i>	Graysby	40	16.1	0.85	0.34
<i>Balistes vetula</i>	Queen triggerfish	42	41.6	0.89	0.89
<i>Lutjanus vivanus</i>	Silk snapper	6	1.9	0.13	0.04
<i>Haemulon flavoineatumi</i>	French grunt	1	0.3	0.02	0.02
<i>Haemulon sciurus</i>	Blues tripped grunt	2	1.1	0.04	0.02
<i>Haemulon plumieri</i>	White grunt	1	1	0.02	0.02
<i>Calamus callamus</i>	Saucereye porgy	18	2	0.38	0.02
<i>Halichoeres radiatus</i>	Yellowhead wrasse	5	3.9	0.11	0.085
<i>Gymnotorax moringas</i>	Purplemouth moray	1	1	0.02	0.02
<i>Remora remora</i>	Remora	1	1	0.02	0.02
<i>Synodus foetens</i>	Sand diver	1	0.6	0.02	0.023
<i>Serranus tabacarius</i>	Tobacco fish	1	0.75	0.02	0.02
<i>Aluterus schoepfi</i>	Orange spotted filefish	1	1	0.02	0.02
<i>Aluterus scriptus</i>	Scrawled fish	1	1	0.02	0.02

Table 49. Summary results of the 1997 Fathers Day Fishing Tournament, St. Thomas, June 8, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
42	216	180	888.8	0.83	4.11
Catch by Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	115	757	0.530	3.50
<i>Scomberomorus cavalla</i>	King mackerel	42	28.4	0.190	0.13
<i>Euthynnus alletteratus</i>	Little tunny	5	16.4	0.020	0.07
<i>Caranx crysos</i>	Blue runner	2	7.8	0.010	0.04
<i>Haemulon parrai</i>	Sailor choice	1	7.4	0.004	0.04
<i>Elagatis bipinnulata</i>	Rainbow runner	1	4.2	0.004	0.02
<i>Caranx latus</i>	Horse-eye jack	10	62.8	0.050	0.30
<i>Coryphaena hippuruss</i>	Dolphin	1	4.8	0.004	0.02

Table 50. Summary results of the 1997 July Open Fishing Tournament (Inshore Category), St. Thomas, July 5-6, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
8	109	113	324.8	1.03	2.97
Catch by Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	12	96.4	0.44	0.88
<i>Scomberomorus cavalla</i>	King mackerel	9	98.8	0.12	0.89
<i>Scomberomorus maculatus</i>	Spanish mackerel	2	34	0.01	0.31
<i>Euthynnus alletteratus</i>	Little tunny	9	59.6	0.08	0.55
<i>Katsuwonus pelamis</i>	Skipjack	1	1	0.004	0.009
<i>Scomberomorus regalis</i>	Cero	6	18.4	0.07	0.16
<i>Caranx hippos</i>	Crevalle jack	1	10.2	0.004	0.09
<i>Lutjanus analis</i>	Mutton snapper	1	6.4	0.01	0.05

Table 51. Summary results of the 1997 July Open Fishing Tournament (Offshore Category), St. Thomas, July 14-16, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
12	312	17	28980	0.05	92.88
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Tetrapterus albidus</i>	White marlin	8	100	0.025	0.32
<i>Makaira nigricans</i>	Blue marlin	9	28880	0.028	9.23

Table 52. Summary results of the 1997 American Yacht Harbor Fishing Tournament, St. Thomas, July 26-28, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
17	442	29		0.065	
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Makaira nigricans</i>	Blue marlin	29	*	0.065	*

\*individual fish weights not reported

Table 53. Summary results of the 1997 Wahoo Fishing Tournament, St. Thomas, November 15, 1997 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
20	135	32	564.4	0.23	4.18
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	9	207.20	0.067	1.530
<i>Thunnus atlanticus</i>	Blackfin tuna	5	30.6	0.037	0.230
<i>Coryphaena hippurus</i>	Dolphin	5	83	0.037	0.610
<i>Scomberomorus regalis</i>	Cero	1	1.8	0.007	0.013
<i>Euthynnus aletteratus</i>	Little tunny	1	4.6	0.007	0.034
<i>Scomberomorus cavalla</i>	Kingfish	2	20.8	0.015	0.150
<i>Euthynnus pelamis</i>	Skipjack	8	179	0.059	1.320
<i>Thunnus albacares</i>	Yellowfin tuna	1	37.4	0.0078	0.270



Table 54. Summary results of the 1998 Sweetheart's Fishing Tournament, St. Thomas, February 17, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
6	42	29	283.81	0.69	6.75

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybidium solanderi</i>	Wahoo	2	67.2	0.047	1.60
<i>Coryphaena hippurus</i>	Dolphin	2	20.6	0.047	0.49
<i>Euthynnus alliteratus</i>	Little tunny	8	42.8	0.190	1.01
<i>Scomberomorus cavalla</i>	King mackerel	4	72.81	0.090	1.73
<i>Thunnus atlanticus</i>	Blackfin tuna	1	2.8	0.020	0.07
<i>Sphyræna barracuda</i>	Barracuda	12	77.6	0.280	1.85

Table 55. Summary results of the 1998 Dolphin Fishing Tournament, St. Thomas, April 19, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
15	115	184	3374.5	1.64	29.34

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Coryphaena hippurus</i>	Dolphin	180	3331	1.560	28.96
<i>Scomberomorus regalis</i>	Cero	3	12.5	0.026	0.108
<i>Scomberomorus cavalla</i>	Kingfish	1	31	0.008	0.269

Table 56. Summary results of the 1998 Frenchtown Mother's Day Fishing Tournament, St Thomas, May 17, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
8	44.5	436	231.75	9.79	5.20
<b>Catch by Species</b>					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Holocentrus adscencionis</i>	Longspine squirrelfish	118	29.2	2.65	0.65
<i>Epinephelus cruentatus</i>	Graysby	56	21	1.25	0.47
<i>Balistes vetula</i>	Queen triggerfish	50	58.3	0.89	1.32
<i>Epinephelus fulvus</i>	Coney	50	23.5	0.89	0.52
<i>Epinephelus guttatus</i>	Red hind	37	39.7	0.83	0.9
<i>Lutjanus vivanus</i>	Silk snapper	18	6.84	0.40	0.15
<i>Ocyurus chrysurus</i>	Yellowtail snapper	17	11.28	0.40	0.25
<i>Haemulon plumieri</i>	White grunt	13	9.8	0.29	0.22
<i>Haemulon melanurum</i>	Cottonwick	12	1.77	0.262	0.27
<i>Monacanthus spp</i>	Filefish	6	2.34	0.13	0.14
<i>Calamus calamus</i>	Saucereye porgy	10	8.5	0.22	0.22
<i>Gymnothorax moringa</i>	Purplemouth moray	3	2.47	0.06	0.045
<i>Haemulon flavolineatum</i>	French grunt	2	0.5	0.05	0.02
<i>Hypoplectrus nigricans</i>	Black hamlet	1	0.09	0.02	0.002
<i>Halichoeres radiatus</i>	Puddingwife	4	3.56	0.09	0.08
<i>Haemulon sciurus</i>	Bluestripped grunt	2	0.76	0.05	0.02
<i>Lutjanus apodus</i>	School master	2	3.7	0.05	0.09
<i>Lactophrys quadricornis</i>	Scrawled cowfish	1	3.42	0.02	0.06
<i>Aluterus scriptus</i>	Orange filefish	3	0.63	0.06	0.01
<i>Lobotes surinamensis</i>	Tripletail	3	0.66	0.06	0.01
<i>Malacanthus plumieri</i>	Sandtile	6	2.55	0.13	0.06
<i>Sparisoma virides</i>	Stoplight parrotfish	1	1.18	0.02	0.02

Table 57. Summary results of the 1998 Frenchtown Fathers Day Fishing Tournament, St. Thomas, June 14, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
38	268.5	178	1604.4	0.66	5.97

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybidium solanderi</i>	Wahoo	2	41	0.007	0.150
<i>Caranx hippos</i>	Crevalle jack	5	34.6	0.018	0.160
<i>Synodus foetens</i>	Sand diver	1	2.8	0.003	0.010
<i>Caranx latus</i>	Horse-eye jack	5	31.6	0.018	0.120
<i>Scomberomorus regalis</i>	Cero	17	103	0.060	0.380
<i>Coryphaena hippurus</i>	Dolphin	3	24.4	0.011	0.089
<i>Euthynnus allteratus</i>	Little tunny	5	24	0.018	0.089
<i>Scomberomorus cavalla</i>	King mackerel	22	214.6	0.082	0.800
<i>Thunnus atlanticus</i>	Blackfin tuna	6	92.4	0.022	0.030
<i>Sphyraena barracuda</i>	Barracuda	112	1036	0.420	3.860

Table 58. Summary results of the 1998 July Open Fishing Tournament (Inshore Category), St. Thomas, July 4-5, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
6	96	107	977.9	1.11	10.18

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybidium solanderi</i>	Wahoo	3	48.5	0.03	0.50
<i>Caranx hippos</i>	Crevalle jack	5	24.4	0.05	0.25
<i>Katsuwonus pelamis</i>	Skipjack	1	4.1	0.01	0.04
<i>Caranx latus</i>	Horse-eye jack	6	38.7	0.06	0.40
<i>Scomberomorus regalis</i>	Cero	5	21.3	0.05	0.22
<i>Coryphaena hippurus</i>	Dolphin	3	7.7	0.03	0.08
<i>Euthynnus alliteratus</i>	Little tunny	8	30.7	0.08	0.30
<i>Scomberomorus cavalla</i>	King mackerel	20	287.7	0.21	2.98
<i>Thunnus atlanticus</i>	Blackfin tuna	5	158	0.05	1.64
<i>Sphyraena barracuda</i>	Barracuda	44	315	0.46	3.28
<i>Synodus foetens</i>	Sand diver	2	1.1	0.02	0.01
<i>Caranx ruber</i>	Bar jack	1	2	0.02	0.02
<i>Caranx latus</i>	Horse-eye jack	4	38.7	0.04	0.40

Table 59. Summary results of the 1998 July Open Fishing Tournament (Offshore Category), St. Thomas, July 3-5, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
18	288	63	15138.5	0.22	52.56

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	2	50.5	0.007	0.17
<i>Makaira nigricans</i>	Blue marlin	61	15088	0.21	52.33

Table 60. Summary results of the 1998 Atlantic Blue Marlin Open Fishing Tournament, St. Thomas, August 5-9, 1998 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
27	972	90	21005	0.092	21.6

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Makaira nigricans</i>	Blue marlin	90	21005	0.092	21.6

Table 61. Summary results of the 1998 Vitelcellular Boy Scout Handline Tournament, St. Thomas, September 5-9, 1998 (CPUE = number of fish/angler-hour, PPUE = number of pounds/angler-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
133	332.5	170	22.47	0.51	0.067

Catch per species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Haemulon aeorlineatum</i>	Tomtate	56	6.80	0.160	0.020
<i>Spherooides testudimum</i>	Marbled puffer	31	4.45	0.090	0.010
<i>Lutjanus synagris</i>	Lane snapper	19	2.67	0.050	0.009
<i>Haemulon flavolineatum</i>	French grunt	14	2.20	0.042	0.006
<i>Ocyurus chrysurus</i>	Yellowtail snapper	14	1.36	0.042	0.004
<i>Carangidae</i>	Jacks	11	1.32	0.030	0.004
<i>Gerriidae</i>	Mojarras	6	0.50	0.020	0.002
<i>Blenidae</i>	Blenids	5	0.75	0.015	0.002
<i>Haemulon plumieri</i>	White grunt	3	0.40	0.009	0.001
<i>Holocentridae</i>	Squirrelfish	3	0.14	0.009	0.001
<i>Engraulidae</i>	Anchovies	1	0.20	0.009	0.001
<i>Haemulidae</i>	Grunts	1	0.155	0.009	0.001
<i>Lutjanus griseus</i>	Gray snapper	1	0.12	0.009	0.001
<i>Lutjanus mahogany</i>	Mahogany snapper	1	0.12	0.009	0.001
<i>Lutjanus analis</i>	Mutton snapper	1	0.105	0.009	0.001
<i>Sphyraena barracuda</i>	Barracuda	1	0.35	0.009	0.001
<i>Tylosurus crocodrilus</i>	Houndfish	1	0.33	0.009	0.001
<i>Abudefduf saxatilis</i>	Sergeant major	1	0.50	0.009	0.001

Table 62. Summary results of the 1999 Sweetheart's Fishing Tournament, St. Thomas, February 21, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
6	39	20	125.74	0.51	3.22

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	14	89.88	0.350	2.30
<i>Scomberomorus cavalla</i>	King mackerel	3	18.87	0.070	0.48
<i>Thunnus atlanticus</i>	Blackfin tuna	1	8.04	0.025	0.20
<i>Coryphaena hippurus</i>	Dolphin	1	7.35	0.025	0.18
<i>Ellagatis bipinnulata</i>	Rainbow runner	1	1.6	0.025	0.04

Table 63. Summary results of the 1999 Mother's Day Fishing Tournament, St. Thomas, May 16, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
13	59	645	294.7	10.9	4.99
Catch by Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Halichoeres radiatus</i>	Puddingwife	6	2.74	0.100	0.05
<i>Gymnothorax moringa</i>	Spotted moray	5	2.28	0.080	0.04
<i>Synodus foetens</i>	Sand diver	4	1.83	0.067	0.03
<i>Diodon hystrix</i>	Porcupine puffer	4	1.83	0.067	0.03
<i>Haemulon plumieri</i>	White grunt	8	3.65	0.130	0.06
<i>Malacanthus plumieri</i>	Sandtile fish	3	1.37	0.050	0.02
<i>Stegastes fuscus</i>	Dusky damselfish	6	2.74	0.100	0.05
<i>Lutjanus vivanus</i>	Silk snapper	36	16.44	0.610	0.28
<i>Priacanthus cruentatus</i>	Glasseye snapper	16	7.31	0.270	0.12
<i>Lutjanus synagris</i>	Lane snapper	11	5.02	0.180	0.09
<i>Haemulon melanurum</i>	Cottonwick	30	13.70	0.500	0.23
<i>Ocyurus chrysurus</i>	Yellowtail snapper	72	32.87	1.220	0.56
<i>Calamus calamus</i>	Saucereye porgy	8	3.85	0.130	0.06
<i>Epinephelus fulvus</i>	Coney	59	26.94	1	0.46
<i>Epinephelus cruentatus</i>	Graysbay	128	58.44	2.160	0.99
<i>Epinephelus guttatus</i>	Red hind	64	29.22	1.080	0.50
<i>Elagatis bipinnulata</i>	Rainbow runner	3	1.37	0.050	0.02
<i>Haemulon album</i>	Margate	154	70.31	1542.6	1.19
<i>Aluterus scriptus</i>	Scrawled filefish	5	2.28	0.085	0.04
<i>Sparisoma aurofrenatum</i>	Redband parrotfish	7	3.20	0.110	0.05
<i>Sparisoma chrysopterum</i>	Redtail parrotfish	5	2.28	50.08	0.04
<i>Halichoeres bivittatus</i>	Slippery dick	1	0.46	0.016	0.01
<i>Lutjanus spp</i>	Snappers	3	1.37	0.050	0.02
<i>Haemulon flavolineatum</i>	French grunt	1	0.46	0.016	0.01
<i>Hypoplectrus nigricans</i>	Black hamlet	1	0.46	0.016	0.01
<i>Balistes vetula</i>	Queen triggerfish	5	2.28	0.085	0.04

Table 64. Summary results of the 1999 Fathers Day Fishing Tournament, St. Thomas, June 13, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
45	245	164	1374.9	0.66	5.61

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	63	545	0.25	2.22
<i>Scomberomorus cavalla</i>	King mackerel	57	493	0.23	0.90
<i>Euthynnus alletteratus</i>	Little tunny	25	216.25	0.10	0.88
<i>Thunnus atlanticus</i>	Blackfin tuna	2	17.30	0.008	0.07
<i>Scomberomorus regalis</i>	Cero	10	86.05	0.0408	0.35
<i>Caranx latus</i>	Horse-eye jack	1	8.65	0.004	0.03
<i>Megalops atlanticus</i>	Tarpon	1	8.65	0.004	0.03

Table 65. Summary results of the 1999 July Open Fishing Tournament (Offshore Category), St. Thomas, July 2-4, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
11	306	8	2076	0.026	6.78

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	1	35	0.003	0.17
<i>Makaira nigricans</i>	Blue marlin	7	2041	0.023	6.67

Table 66. Summary results of the 1999 Atlantic Blue Marlin Open Fishing Tournament, St. Thomas, August 23-29, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
26	936	132	27165	0.14	29.02

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Makaira nigricans</i>	Blue marlin	132	27165	0.14	29.02



Table 67. Summary results of the July Open Fishing Tournament (Offshore Category), St. Thomas, September 4-5, 1999 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
20	139.5	43	523.2	0.30	3.75

Catch by Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Coryphaena hippurus</i>	Dolphin	16	194.5	0.110	1.39
<i>Thunnus atlanticus</i>	Blackfin tuna	10	48.6	0.070	0.35
<i>Acanthocybium solanderi</i>	Wahoo	4	121.5	0.028	0.87
<i>Scomberomorus cavalla</i>	King mackerel	13	158.6	0.090	1.13

Table 68. Summary results of the 2000 Wahoo Fishing Tournament, St. Thomas, January 6, 2000 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
4	24	6	205	0.25	8.54

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	6	205.	0.25	8.54

Table 69. Summary results of the 2000 Sweetheart's Fishing Tournament, St. Thomas, March 2, 2000 (CPUE = number of fish/angler-hour, PPUE = number of pounds/angler-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
5	25	8	364.72	0.47	14.58

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	12	78.12	0.48	3.12
<i>Coryphaena hippurus</i>	Dolphin	2	18	0.18	0.72
<i>Thunnus atlanticus</i>	Blackfin tuna	5	51.6	0.23	2.06
<i>Scomberomorus cavalla</i>	Kingfish	12	217	0.058	8.68

Table 70. Summary results of the 2000 Dolphin Fishing Tournament, St. Thomas, April 16, 2000 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
8	56	75	1218.6	1.33	21.7
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Coryphaena hippurus</i>	Dolphin	66	1061.0	1.17	16.01
<i>Acanthocybium solanderis</i>	Wahoo	9	157.60	0.16	2.81

Table 71. Summary results of the 2000 Mother's Day Fishing Tournament, St. Thomas, May 21, 2000 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
9	47	593	253.98	10.9	5.4
Catch by Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Holocentrus spp</i>	Squirrelfish	192	56	4.08	1.20
<i>Balistes vetula</i>	Queen triggerfish	27	31	0.57	0.66
<i>Caranx crysos</i>	Blue runner	4	4	0.06	0.085
<i>Haemulon plumieri</i>	White grunt	3	2	0.02	0.04
<i>Scarus aurofrenatum</i>	Red band parrotfish	1	0.38	0.02	0.007
<i>Haemulon melanurumi</i>	Cottonwick	17	2.8	0.36	0.062
<i>Haemulon spp</i>	Unidentified grunts	17	1.23	0.36	0.02
<i>Ocyurus chrysurus</i>	Yellowtail snapper	4	5.1	0.085	0.11
<i>Scarus taenioperus</i>	Princess parrotfish	4	0.93	0.0850	0.02
<i>Lutjanus synagris</i>	Lane snapper	13	6.7	0.27	0.14
<i>Calamus calamus</i>	Saucereye porgy	12	8.9	0.25	0.005
<i>Epinephelus fulvus</i>	Coney	97	38	2.06	0.04
<i>Epinephelus cruentatus</i>	Graysbay	87	31.6	1.85	0.04
<i>Epinephelus guttatus</i>	Red hind	91	39.8	1.93	0.04
<i>Haemulon flavolineatum</i>	French grunt	5	4.56	0.11	0.08
<i>Lutjanus spp</i>	Unidentified snappers	8	3.86	0.17	0.02
<i>Caranx latuss</i>	Horse-eye jack	1	8	0.02	0.001
<i>Lutjanus mahogany</i>	Mahogany snapper	7	4.7	0.15	0.10
<i>Remora remora</i>	Remora	1	0.71	0.02	0.01
<i>Gymnothorax funebris</i>	Green moray	1	1.11	0.02	0.02
<i>Lactophrys triqueter</i>	Scrawled cowfish	1	2.6	0.02	0.06

Table 72. Summary results of the 2000 Father's Day Fishing Tournament, St. Thomas, June 11, 2000 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
5	64	56	504.6	0.87	7.88
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Sphyraena barracuda</i>	Barracuda	23	235	0.360	3.67
<i>Caranx latus</i>	Horse-eye jack	2	23.8	0.031	0.37
<i>Euthynnus alleteratus</i>	Little tunny	4	18	0.060	0.28
<i>Thunnus atlanticus</i>	Blackfin tuna	1	16.6	0.016	0.26
<i>Scomberomorus regalis</i>	Cero	4	22.4	0.060	0.35
<i>Scomberomorus cavalla</i>	Kingfish	19	188.8	0.290	2.95

Table 73. Summary results of the 2000 Vitelcellular Boyscout Handline Tournament, St. Thomas, August 8, 2000 (CPUE = number of fish/angler-hour, PPUE = number of pounds/angler-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
133	332.5	102	8.13	0.30	0.02
Catch per Species					
SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Haemulon aerolineatum</i>	Tomtate	4	0.22	0.16	0.001
<i>Sphoeroides testudimum</i>	Marbled puffer	54	5.94	0.09	0.020
<i>Lutjanus synagris</i>	Lane snapper	13	0.684	0.05	0.002
<i>Haemulon flavolineatum</i>	French grunt	3	0.068	0.042	0.001
<i>Ocyurus chrysurus</i>	Yellowtail snapper	14	0.876	0.042	0.002
<i>Carangidae</i>	Jacks	1	0.04	0.03	0.001
<i>Gerriidae</i>	Mojarras	4	0.052	0.02	0.001
<i>Blenidae</i>	Blenids	6	0.174	0.015	0.001
<i>Haemulon plumieri</i>	White grunt	3	0.078	0.009	0.001

Table 74. Summary results of the 2000 Inshore Fourth Fishing Tournament, St. Thomas, September 2-3, 2000 (CPUE = number of fish/boat-hour, PPUE = number of pounds/boat-hour).

NUMBER OF PARTICIPANTS	TOTAL HOURS FISHED	NUMBER OF FISH CAUGHT	TOTAL WEIGHT (LBS)	OVERALL CPUE	OVERALL PPUE
5	84	47	556.4	0.55	6.62

Catch per Species

SPECIES	COMMON NAME	NUMBER CAUGHT	TOTAL POUNDS	CPUE	PPUE
<i>Acanthocybium solanderi</i>	Wahoo	3	100.2	0.035	1.18
<i>Coryphaena hippurus</i>	Dolphin	21	69.2	0.250	0.82
<i>Katsuwonus pelamis</i>	Skipjack	4	23.8	0.047	0.28
<i>Thunnus allalunga</i>	Yellowfin tuna	7	218	0.083	2.57
<i>Euthynnus alleteratus</i>	Little tunny	1	3.2	0.118	0.038
<i>Thunnus atlanticus</i>	Blackfin tuna	4	42.4	0.047	0.50
<i>Scomberomorus regalis</i>	Cero	2	13.6	0.024	0.16
<i>Scomberomorus cavalla</i>	Kingfish	5	86	0.059	1.02

APPENDIX 1  
RECREATIONAL PORT SAMPLING FORM

Vessel Information

Agent Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Port: \_\_\_\_\_  
Vessel Length: \_\_\_\_\_ Crew Size = # people fishing: \_\_\_\_\_  
Fishing Mode: Charter Private Shore pier  
(Circle one)

Location: Offshore Reef Area Fished: \_\_\_\_\_  
(circle one)

Effort Information

Gear Type\*/Amount: \_\_\_\_\_ / \_\_\_\_\_ Hours Fished: \_\_\_\_\_  
\*(rod & reel=1, handline=2, castnet=3, SCUBA=4, Hook=5, snorkel=6, hook=7)

Catch Information

Common Name	Number	Weight (lbs)	Length(mm)	Notes

Interview type: Personal Phone Logbook Random survey