

Preliminary Estimation of Reported Landings, Expansion Factors and Expanded Landings for the Commercial Fisheries of the United States Virgin Islands

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1. Summary

An overview of the commercial fisheries of the Virgin Islands is presented. The data collection system is described and landings for years 1974-2002 are compiled and summarized. Landings and effort information have been reported in at least 3 different formats (and variations) over this period, and have been applied at different times in the 3 islands comprised in the USVI: St. Thomas, St. John, and St. Croix. Annual files were compiled and summarized by format-type and district (St. Thomas/St. John and St. Croix). Summaries include reported catch and effort by gear type or species category and year and the number of records (as a proxy for the number of trips) by year by district. Expansion factors were calculated (or drawn from annual reports) as the ratio of total number of registered fishermen and the number of reporting fishermen by year. A second expansion factor was calculated for years 1974-1985 as the number of completed reports divided by the possible number of reports (12 months*number of fishermen reporting). The first expansion factor was used to estimate total landings for years 1974-2002. Significant gaps and inconsistencies were encountered in the data sets, but this was a preliminary approach toward building a comprehensive database for the U.S.V.I. landings statistics, which can be useful for the analysis of various species groups in the future.

2. Description of the Commercial Fisheries and the Data

The commercial fisheries of the United States Virgin Islands are multi-gear and multi-species in nature. Five main gear types are used to harvest fish and shellfish species, particularly reef species and some pelagic fishes. These gears are: traps (or pots); nets (used as purse seines, beach seines, gillnets, castnets, and trammel nets); scuba gear; free diving; and hook and line gear. The reef fish harvest is composed of more than 12 families and 180 species, and the majority of offshore fisheries are composed of the Scombridae and Coryphaenidae families, with a total of 7 species.

The collection of adequate data for use in fisheries management of a multi-gear and multi-species fishery in the Caribbean has been difficult. In 1974, U.S. Virgin Islands Legislative Act 3330 established a mandatory reporting system for fisheries data. At the beginning of the program, the data consisted in total landings by gear type, which had limited use for assessment and management. To improve this information, the U.S. Virgin Islands Division of Fish and Wildlife, Bureau of Fisheries (DPNR/DFW) and the National Marine Fisheries Service entered into a cooperative agreement in 1983 to obtain more detailed data.

Landings data in the U.S. Virgin Islands are collected directly by fishermen. They mail or deliver monthly reports to the DFW. All reports for the 12-month period beginning in July must be received before a commercial fishing license is renewed. DFW is responsible for entering the data and verifying it prior to submission, once a year, to the Southeast Fisheries Science Center in Miami. The Division of Fish and Wildlife maintains separate data sets for the landings made in St. Croix and the landings made in St. Thomas and St. John combined because these islands they lay on different platforms and their fisheries are not connected. Computerization of the data began in 1982 for St. Thomas/St. John and in 1983 in St. Croix.

Currently, landings statistics are available in electronic form from January 1974 through December 2002. During this period, the DFW changed the monthly reporting form three times to accommodate the level of detail necessary to assess and manage this complex fishery. Maps of the U.S. Virgin Islands and the different catch report forms are provided in Appendix A. A summary of the fields contained in each form and the years when they were applied are provided in Tables 1 and 2.

Catch records from 1974-1986 reported the landings (in pounds) per trip by category (snappers/groupers, bait fish, fin fish, lobsters, and 'other kinds', that included conch, whelk, octopus, squid, clam and oysters); gear type (hook and line, net, pot, speargun and dive), and area fished (Old Form 1 in Table 1).

From 1986 to 1994-1996 similar categories were used, but snappers/groupers were combined with the rest of the fish by gear category; conch, whelk and offshore (pelagic) fishes were given a separate field; and the distance from shore was introduced (Old Form 2 in Table 1). Many changes were incorporated to this form. Between 1986 and 1999 a "short" version was used to create the electronic database, which contained one field for the fish code, another for the gear type and a third for the total catch (Old Form 3 in Table 1). In 1993 fields for tuna, dorado, and wahoo landings were added. This form was used from 1993 to 1996 (Old Form 4 in Table 1).

In the 1994-1995 fishing year the St. Croix office introduced a New Form (Table 1) to provide better information on the composition of the commercial harvest. This Revised Form was designed to provide landings (in pounds) by family or species groups (instead of the broad categories of finfish that were used previously); the gear type used; an estimate of fishing effort (the number of gear and the estimated time in hours fished during the trip); and the distance from shore (i.e., less than 3 miles, 3 to 200 miles or greater than 200 miles). The fishing area designations and gear categories remained the same. The New, Revised or "long" form was tested by a small group of fishermen on a volunteer basis in the 1994-1995 and 1995-1996 fishing years. Its use was expanded to the entire territory in 1996.

For a long time, fishers continued to report landings data on outdated catch report forms, which resulted in the production of two or three data files per fishing year by island. Accompanying each generation of catch forms were new gear and location codes (a summary is provided in Appendix A). Because of all these changes in the reports, the data are available in separate files by fishing year (July-June), form-type and district (St. Thomas/St. John and St. Croix), resulting in multiple files for each fishing year containing different fields, gear and species categories. A summary of the information contained in each type of form is provided in Table 1. The years when each form was used are shown in Table 2.

The objectives of the State/Federal Cooperative Statistics Program for the collection of commercial fisheries landings information in the U. S. Virgin Islands are: to estimate total harvest, fishing effort, and the value of the commercial fishery; to develop an improved catch report form to record fish harvest by species group; and to maintain the Division of Fish and Wildlife computerized commercial landings database (DFW, 2001).

The Bureau of Fisheries (Division of Fish and Wildlife) submits annual, bi-annual or three-year reports to the National Marine Fisheries Service, whereby the landings and effort for that period are summarized by gear and species categories, and by the number of fishing trips per area. A distinction is made between the 'Reported' landings and the 'Projected' landings. These are calculated by multiplying the total reported landings by the ratio of the number of licensed fishermen to the number of reporting fishermen. In some reports, 'Estimated Landings' were also calculated, based upon the number of monthly reports remitted. The total number of possible monthly reports (12 months multiplied by the number of registered commercial fishermen) is divided by the number of reports actually completed. The total reported landings are then multiplied by this ratio. This method is used to account for the fishermen who turn in only a percentage of the 12 monthly reports. Landings have thus been reported as Reported Landings, Projected Landings, and Estimated Landings.

3. Objectives

The objectives of this report are:

- i. To compile, review and summarize the information provided in the annual performance reports of the Division of Fish and Wildlife.
- ii. To compile and organize the commercial landings data files by type of report, by calendar year and by island.
- iii. To calculate expansion factors from information provided in the performance reports.
- iv. To summarize the reported and expanded commercial landings of the U.S. Virgin Islands.
- v. To explore the possibilities of further analysis of this information.

4. Methods

4.1. Landings Statistics

The landings data were provided as separate files by fishing year from 1974-75 to 2001-2002. In some cases, landings for all islands were contained in single (annual) file; in other cases, landings from St. Thomas-St. John were included in one file for a particular year, and landings from St. Croix in a separate one. Extensive manipulation of the data sets was required to build a single database, given that the format and content of the records varied so much through time. The SAS software version 8.0 (The SAS Institute 2000) was used to filter, edit, and organize the information. A method similar to that outlined in Valle-Esquivel (2002a, 2002b) was used to organize and analyze the information.

The aim was to assemble a single data set with one record per trip to be able to draw time-series of catch and effort by district (St. Thomas/St. John and St. Croix). The following steps summarize the process used to combine, merge, and analyze the 1974-2002 landings data of the U.S. Virgin Islands:

1) Data sets for years with similar or consistent formats were combined into a single data set, resulting in four distinct files. Data sets from all islands/ areas were combined. At this stage all the fields (columns) were maintained, even when some may have been incomplete or empty as changes in the format occurred. The 4 data sets were:

- i. Files from STT/STJ and STX with the old format (Old 1 in Table 1) from years 1974-75 to 1984-85 were combined.
- ii. Files with the formats Old 2 and 4 (Table 1), where the landings were collected by gear type were combined. This process included files labeled with the prefix LOG_, LOGB_, SHOR_.
- iii. The third format (Old 3) is similar to the previous one but the landings are given by species group. It contains the fish codes in one column, the gear codes in another and the landings in a third column. Records from this file were later split by fish code in order to have the landings of each fish type on a separate field as in (ii.) above and one record per trip. The files included were labeled VI_O, USVI_, STX_OLD. This set of data was combined with (ii).
- iv. Includes files in the New (or Long) format, with landings reported by species groups. The files included have labels with the suffix _R, _N, or _NEW.

These combined files were constructed by matching up as much information from the different forms as possible. Some fields were renamed and codes standardized for consistency; other fields were merged and others discarded if necessary. However, to the extent possible, as much information as possible from each file-type was preserved.

2) Editing of these combined data sets included cleansing errors and removing duplicates and obvious outliers. It is important to note that coding and typing errors were corrected to the extent possible, based on the lists of codes and the reports available. Some of the criteria used to edit the data were:

- An island field was assigned according to the area landed.
- Area codes were not always included, so the district was assigned based on the origin of the file.
- Duplicate records were considered those where all the fields were equal.
- Only records with no date were removed.
- Obvious outliers (one or more orders or magnitude larger or smaller than the average) were set to zero in multiple-species records (to avoid removing catches of other species) and removed in single-species records.
- Records where all the fields but the pounds landed by species were equal were assumed to correspond to the same fishing trip. Data were grouped (merged) into a single record, by adding up the landings and keeping the rest of the fields intact.

- Records without an identification code or vessel number were assumed to correspond to one trip per record.
- To preserve as much information as possible, the summaries had to be drawn from these three separate files.
- Errors in the identification or vessel numbers could not be corrected because the fishermen lists were not available at the moment. Other coding errors (gear type, area fished, fish type, etc.) were corrected when possible.

It is evident that the criteria used in this editing and merging process may be somewhat subjective and arbitrary. However, the approach was consistent throughout the study and may be reproduced, so that any biases in the estimates may be traced. Furthermore, this study intends to provide rough approximations of fishery statistics that will be refined once the official editing of the data is completed.

The most apparent flaws in the current data sets include (but are not limited to) the following: there is an overlap in the years where different forms were used, it is unclear if data may be duplicated; fishing years 1988-89 through 1992-1993 have not been digitized entirely and some fields may be incomplete or missing; and, in general, coding errors, typos, duplicates, and other editing problems persist throughout the time-series. DFW and SEFSC personnel are leading the editing process.

4.3. Reported Landings

Reported landings are summarized in three formats, based on the combined data sets discussed in the previous section:

1. Data from Old Report Form 1 (1974-1986).
2. Data from Old Report Forms 2,3, and 4 (1986-1999).
3. Data from New Report Form (1994-2002).

4.3. Expansion Factors and Expanded Landings.

Two expansion factors were drawn or re-calculated from information provided in the annual performance reports from the Virgin Islands (DFW, 1990-2001). In particular, the number of fishermen and the number reports submitted were applied as follows:

The first expansion factor (EF1) is a ratio of the number of licensed fishermen to the number of fishermen that turned in catch reports (any number of reports) for that year:

$$EF1 = \text{No. of Licensed Fishermen} / \text{Number of Reporting Fishermen.} \quad (1)$$

The expanded (or projected) landings are estimated as:

$$\text{Expanded Landings} = EF1 * \text{Reported Landings} \quad (2)$$

The second expansion factor (EF2) relates to licensed commercial fishers who submitted reports. A ratio can be made based on the total number of possible monthly reports (12 reports per year* the number of fishers that submitted reports= A) divided by the number of reports actually completed (B):

$$EF2= A/ B \quad (3)$$

This could then be applied to the expanded estimate from above to adjust total landings for fishers that did not turn in catch reports:

$$\text{Estimated Landings}= EF2 * \text{Expanded Landings} \quad (4)$$

Annual reports contained the first expansion information for years 1981 onward. Ratios for previous years were assumed equal to that of 1981, since estimates from available compliance data (1974-1986) gave disproportionate values for some years. Landings expanded this way may be underestimated because fishermen are treated equally (as reporting fishermen) whether they submitted one or more reports per year.

Information to calculate the second ratio was sparse and therefore the total landings were not estimated, as in equation (4). Furthermore, the implicit assumption that reporting fishermen fish every month and catch the same amount every month may overestimate landings.

4.4. Catch Composition by Gear (from New Forms).

The new catch report forms include gear type and better defined species groups than previously. In an effort to understand what species were comprised in the former gear categories (from old forms), new records (years 1994-2002) were classified by gear type of gear combination. This information may be useful to understand the transition in catch report forms and to try to apply a uniform approach across years for catch-composition analyses.

5. Results

5.1. Expansion Factors.

The number of licensed and reporting fishermen by year and estimates of Expansion Factor 1 (EF1) from annual reports (DFW, 1981-2001) are given in Table 3. Data for years 1974-1979 was not available in annual reports, and calculated values (from data files) may be overestimated, so EF1 was assumed constant and equal to the first year of reported data (1979-80). This information is represented in Figure 1.

Expansion factor 2 was calculated from compliance reports for years 1974-1986 and taken from annual reports for years 1993-99 (DFW, 1997-2001). Neither estimates nor data for years 87-92 were available. The number of reporting fishermen and reports submitted by year and values of EF2 are provided in Table 4.

5.2. Estimated Landings.

Reported and expanded total landings taken from annual performance reports of the Division of Fish and Wildlife to the National Marine Fisheries Service (DFW 1981-2001) are provided in Tables 5 and 6 and depicted in Figure 2. In those reports, landings were summarized by fishing year (that runs from July through June) and by District. Throughout this report, STT/STJ will correspond to the district of St. Thomas/St. John and STX to the district of St. Croix.

The landings and number of records estimated from the data files are summarized by calendar year, district, and the catch categories included in each type of catch report form. For each type (Old Form 1974-86, Old Form 1986-1999, New Form 1994-2002), reported and expanded landings are presented. Expanded landings were calculated from the estimated (reported) landings and the Expansion Factor 1 (EF1) shown in Table 3 for each district.

One record corresponds to a fisherman or and/or vessel id by date and that fished in one district/area with one or multiple gears. One record may or may not be equivalent to a fishing trip, as identification numbers contain multiple errors or are often missing and individual fishermen could not be traced precisely. Also, records with identical information except for the number of pounds landed or the area fished could not be classified as the same or separate trips. Therefore, the number of records is a proxy of the number of trips, but these may never be known precisely unless extensive error-proofing is conducted.

The tables and figures summarizing the information from each report format include the reported and expanded total landings by district and year; the landings by catch category and district for all years combined; and the landings by year, district and category.

Landings summaries estimated from Old Forms (1974-1986) are provided in Tables 7-10 and are illustrated in Figures 3 and 4. The expanded landings of snappers and groupers by gear-type for this period are depicted in Figure 5.

Summaries from the Old Forms (1985-1999) are given in Tables 11-14 and Figures 6 and 7. Note that during this period snappers/groupers groups were not identified and the catch categories were mostly gear-categories, except for lobster, whelk and conch that had separate fields in the forms.

Summaries from the New Forms (1994-2002) are given in Tables 15-18 and Figures 8 and 9. The expanded snapper and grouper landings are illustrated in Figure 10. The proportion of landings by species category and gear type for this period is provided in Tables 19 and 20 and depicted in Figure 11. Figures 12 and 13 represent the proportion of snapper and grouper landings by gear category for the whole period (1994-2002) and by year.

The summary from all forms combined, showing the reported and expanded total landings by year and district is given in Table 21 and illustrated in Figure 14. A comparison of the expanded landings estimated in this study and the "Projected Landings" from the annual DFW reports (DFW, 1980-2001) is represented in Figure 15 with information drawn from Tables 6 and 21.

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Table 1. Fields contained in the different catch report forms used in the U.S. Virgin Islands between years 1974-2003.

1	2	3	4	5
OLD FORM (1) (1974-1985)	OLD FORM (2) (1986-1999)	OLD FORM (3) (Short) (1988-1992)	OLD FORM (4) (1992-1999)	NEW FORM (Revised) (1994-2003)
1. ID#	1. LOCATION	1. ID CODE	1. ID CODE	1. GEAR TYPE
2. LAST NAME	2. FISHERMEN #	2. CLASS	2. FISHED (yes/no)	2. GEAR NO.
3. FIRST NAME	3. VESSEL #	3. ISLE: St. Croix St. Thomas/ St. John	3. TRIP DATE	3. AREA FISHED
4. BOAT LICENSE	4. DATE	4. TRIP DATE	4. POT FISH	4. HOURS FISHED
5. FISHING LICENSE	5. POTFISH	5. FISH CODE: Bait (B), Conch (C)	5. POTS	5. GROUPED
6. DATE	6. NETFISH	6. GEAR CODE: Finfish (S), Lobster (L), Whelk (W), Other(Z)	6. HOOK FISH	6. SNAPPER
7. # OF HELPERS	7. HOOKFISH	7. NO. POTS	7. NET FISH	7. GRUNT
8. POT FISH SNAPPER GROUPE	8. SPEAR GUN	8. NO. SPEAR GUNS (S_G)	8. SPEARGUN	8. JACK
9. POT FISH ALL OTHERS	9. POT LOBSTER	9. NO. OTHER GEAR	9. POT LOBSTER	9. SURGEON
10. NET FISH SNAPPER GROUPE	10. DIVED LOBSTER	10. FISH AREA	10. DIVED LOBSTER	10. PARROT
11. NET FISH ALL OTHERS	11. CONCH	7. NO. POTS	11. CONCH	11. SHELLFISH
12. HOOK FISH SNAPPER GROUPE	12. WHELK	8. NO. SPEAR GUNS (S_G)	12. WHELK	12. TRIGGER
13. HOOK FISH ALL OTHERS		9. NO. OTHER GEAR	13. BAITFISH	13. BARRA
14. SPEAR/GUN FISH SNAPPER GROUPE		10. FISH AREA	14. FISH AREA	14. GOAT
15. SPEAR/GUN FISH ALL OTHERS			15. DISTANCE FROM SHORE (> 3 miles)	15. MACKEREL
16. LOBSTER BY POT			16. TUNA	16. OFFSHORE (D/T/W)
17. LOBSTER BY HAND			17. DORADO	17. FAD
18. OTHER KINDS CONCH, WHELK, OCTOPUS, SQUID, CLAM, OYSTERS			18. WAHOO	18. BAITFISH
19. AREA				19. LOBSTER
20. NOTES				20. CONCH MEAT
				21. WHELK MEAT
				22. DISTANCE FR LAND

Table 2. Catch report form used by fishing year in the U.S. Virgin Islands. Please refer to Table 1 and Appendix A to see the fields contained in each type of form.

FISHING YEAR	CATCH REPORT FORM USED	
	St.Thomas/St. John	St. Croix
1974-1975	Old(1)	Old(1)
1975-1976	Old(1)	Old(1)
1976-1977	Old(1)	Old(1)
1977-1978	Old(1)	Old(1)
1978-1979	Old(1)	Old(1)
1979-1980	Old(1)	Old(1)
1980-1981	Old(1)	Old(1)
1981-1982	Old(1)	Old(1)
1982-1983	Old(1)	Old(1)
1983-1984	Old(1)	Old(1)
1984-1985	Old(1)	Old(1)
1985-1986	Old(1)	Old(1)
1986-1987	Old(2)	Old(2)
1987-1988	Old(2,3)	Old(2,3)
1988-1989	Old(2,3)	Old(2,3)
1989-1990	Old(2,3)	Old(2,3)
1990-1991	Old(2,3)	Old(2,3)
1991-1992	Old(2,3)	Old(2,3)
1992-1993	Old(2,3)	Old(2,3,4)
1993-1994	Old(4)	Old(4), New
1994-1995	Old(4)	Old(4), New
1995-1996	Old(4)	Old(4), New
1996-1997	Old(4)	Old(4), New
1997-1998	Old(4), New	Old(4), New
1999-2000	Old(4), New	New
2000-2001	New	New
2001-2002	New	New

Table 3. U.S. Virgin Islands. Number of licensed and reporting fishermen by year, percent reporting and estimates of Expansion Factor 1 from annual reports (DFW, 1981-2001). Data for years 1974-1979 (shaded) was assumed constant and equal to the first year of reported information (1979-80). Shaded areas correspond to raw data from annual files.

FISHING YEAR	No.Licensed Fishers			No.Fishers Reporting			% Fishers Reporting			Expansion Factor1		
	STT/STJ	STX	TOTAL	STT/STJ	STX	TOTAL	STT/STJ	STX	TOTAL	STT/STJ	STX	TOTAL
1974-75	230	227	457	72		72	31%		31%	2.35	3.13	
1975-76	312	197	509	30	41	71	10%	21%	14%	2.35	3.13	
1976-77	621	225	846	74	48	122	12%	21%	14%	2.35	3.13	
1977-78	162	103	265	111	19	130	69%	18%	49%	2.35	3.13	
1978-79	161	121	282	131	48	179	81%	40%	63%	2.35	3.13	
1979-80	212	143	355	143	20	163	67%	14%	46%	2.35	3.13	
1980-81	258	163	421	110	52	162	43%	32%	37%	2.35	3.13	2.60
1981-82	256	322	578	122	94	216	48%	29%	38%	2.10	3.43	2.68
1982-83	259	195	454	132	91	223	51%	47%	49%	1.96	2.14	2.04
1983-84	255	182	437	149	139	288	58%	76%	67%	1.71	1.31	1.52
1984-85	255	182	437	159	160	319	62%	88%	75%	1.60	1.14	1.37
1985-86	330	206	536	137	139	276	42%	67%	54%	2.41	1.48	1.94
1986-87	329	200	529	135	88	223	41%	44%	43%	2.44	2.27	2.37
1987-88	306	217	523	131	113	244	43%	52%	47%	2.34	1.92	2.14
1988-89	237	188	425	165	123	288	70%	65%	68%	1.44	1.53	1.48
1989-90	198	206	404	106	84	190	54%	41%	47%	1.87	2.45	2.13
1990-91	182	188	370	131	93	224	72%	49%	61%	1.39	2.02	1.65
1991-92	231	197	428	160	116	276	69%	59%	65%	1.44	1.70	1.55
1992-93	212	197	409	186	170	356	88%	86%	87%	1.14	1.16	1.15
1993-94	233	241	474	149	188	337	64%	78%	71%	1.56	1.28	1.41
1994-95	204	193	397	163	188	351	80%	97%	89%	1.25	1.03	1.13
1995-96	182	180	362	149	174.6	323.6	82%	97%	89%	1.22	1.03	1.12
1996-97	131	212	343	124	210	334	95%	99%	97%	1.06	1.01	1.03
1997-98	153	216	369	138	208	346	90%	96%	93%	1.11	1.04	1.07
1998-99	143	206	349	136	200	336	95%	97%	96%	1.05	1.03	1.04

Table 4. U.S. Virgin Islands. Expansion Factor2 estimated from compliance reports for years 1974-1986 and taken from annual reports for years 1993-99 (DFW, 1997-2001). Estimates for FY 87-92 were not available. ExpReports = expected number of reports (Nreports) from reporting fishermen (Nfishers) (ExpReports= 12 months* Nfishers per fishing year).

Expansion Factor 2 (EF2)							
District	Year	Nfishers	Nreports	ExpReports (12*Nfishers)	% of Exp Reports	EF2	
STT/STJ	74-75	72	463	864	53.6%	1.87	
	75-76	30	146	360	40.6%	2.47	
	76-77	74	666	888	75.0%	1.33	
	77-78	111	953	1332	71.5%	1.40	
	78-79	131	1065	1572	67.7%	1.48	
	79-80	143	1284	1716	74.8%	1.34	
	80-81	118	1059	1416	74.8%	1.34	
	81-82	122	1078	1464	73.6%	1.36	
	82-83	161	1455	1932	75.3%	1.33	
	83-84	138	1445	1656	87.3%	1.15	
	84-85	157	1568	1884	83.2%	1.20	
	85-86	189	1994	2268	87.9%	1.14	
		93-94					1.17
		94-95					1.22
		95-96					1.10
		96-97					1.03
	97-98					1.20	
	98-99					1.20	
<hr/>							
District	Year	Nfishers	Nreports	ExpReports (12*Nfishers)	% of Exp Reports	EF2	
STX	75-76	41	393	492	79.9%	1.25	
	76-77	48	558	576	96.9%	1.03	
	77-78	19	168	228	73.7%	1.36	
	78-79	48	462	576	80.2%	1.25	
	79-80	20	131	240	54.6%	1.83	
	80-81	31	314	372	84.4%	1.18	
	81-82	64	626	768	81.5%	1.23	
	82-83	98	930	1176	79.1%	1.26	
	83-84	104	1118	1248	89.6%	1.12	
	84-85	124	1266	1488	85.1%	1.18	
	85-86	23	38	276	13.8%	7.26	
		93-94					1.24
		94-95					1.37
		95-96					1.59
		96-97					1.37
		97-98					1.23
	98-99					1.80	

Table 5. Reported total landings from annual performance reports (DFW,1981-2001). STT/STJ= St. Thomas/St. John, STX= St. Croix. Fishing years run from July one year through June the following year.

Reported Total Landings			
Fishing Year	STT/STJ	STX	TOTAL
1980-81	410,008	101,618	511,626
1981-82	506,178	262,118	768,296
1982-83	482,388	182,580	664,968
1983-84	564,454	364,587	929,041
1984-85	543,634	364,162	907,796
1985-86	593,044	392,969	986,013
1986-87	538,824	272,980	811,804
1987-88	492,997	175,547	668,544
1988-89	766,027	398,957	1,164,984
1989-90	466,550	236,366	702,916
1990-91	641,356	481,871	1,123,227
1991-92	728,089	502,657	1,230,746
1992-93	778,386	322,642	1,101,028
1993-94	743,179	666,009	1,409,188
1994-95	775,734	585,808	1,361,542
1995-96	561,073	399,121	960,194
1996-97	823,964	433,915	1,257,879
1997-98	728,699	714,608	1,443,307
1998-99	583,788	607,665	1,191,453

Table 6. Projected total landings taken from annual performance reports (DFW, 1981-2001).

Projected Total Landings			
(Projected=Reported*EF1)			
Fishing Year	STT/STJ	STX	TOTAL
1980-81	961656	318533	1280189
1981-82	1062144	897893	1960037
1982-83	946504	391243	1337747
1983-84	966012	477373	1443385
1984-85	871866	414234	1286100
1985-86	1428499	582386	2010885
1986-87	1313134	620409	1933543
1987-88	1151581	337113	1488694
1988-89	1100293	609788	1710081
1989-90	871480	579659	1451139
1990-91	891045	974105	1865150
1991-92	1051179	853650	1904829
1992-93	886220	373942	1261078
1993-94	1169033	853767	2015919
1994-95	966098	601388	1571056
1995-96	685337	410524	1096802
1996-97	870478	438047	1308525
1997-98	807905	742092	1549997
1998-99	613835	625894	1239729

Table 7. U.S. Virgin Islands, Old Form (1974-1986). **a)** Reported and **b)** Expanded Landings by district and calendar year.

(a)

Reported Landings from OLD Form (1974-1986)

	STT/STJ		STX		ALL USVI	
	No. Records	RepLandings (lb)	No. Records	Rep Landings	No. Records	Rep Landings
1974	838	57,656			838	57,656
1975	4,267	264,787	570	38,208	4,837	302,995
1976	3,753	224,631	754	59,850	4,507	284,481
1977	3,984	266,236	724	66,511	4,708	332,747
1978	5,468	478,023	989	77,859	6,457	555,883
1979	5,547	500,965	628	78,047	6,175	579,012
1980	5,168	506,347	790	53,040	5,958	559,387
1981	5,157	518,385	1,899	110,360	7,056	628,744
1982	5,630	499,814	3,367	170,358	8,997	670,171
1983	6,827	606,387	5,290	245,296	12,117	851,682
1984	7,133	606,540	6,729	317,770	13,862	924,311
1985	7,986	616,324	3,966	175,621	11,952	791,945
1986	4,128	280,208			4,128	280,208
Totals	65,886	5,426,301	25,706	1,392,919	91,592	6,819,220

(b)

Expanded Landings from OLD Form (1974-1986)

	STT/STJ		STX		ALL USVI	
	No. Records	RepLandings (lb)	No. Records	Rep Landings	No. Records	Rep Landings
1974	838	135,492			838	135,492
1975	4,267	622,248	570	119,591	4,837	741,839
1976	3,753	527,883	754	187,329	4,507	715,212
1977	3,984	625,653	724	208,180	4,708	833,834
1978	5,468	1,123,355	989	243,700	6,457	1,367,055
1979	5,548	1,177,267	628	244,287	6,176	1,421,554
1980	5,168	1,189,916	790	166,015	5,958	1,355,931
1981	5,157	1,163,691	1,899	367,105	7,056	1,530,796
1982	5,631	1,013,348	3,367	471,329	8,998	1,484,677
1983	6,829	1,111,520	5,290	403,117	12,119	1,514,637
1984	7,133	1,005,335	6,729	389,577	13,862	1,394,912
1985	7,986	1,246,974	3,966	200,208	11,952	1,447,182
1986	4,128	675,301			4,128	675,301
Total	65,890	11,617,984	25,706	3,000,438	91,596	14,618,422

Table 8. U.S. Virgin Islands, Old Form (1974-1986). **a)** Landings categories, **b)** Reported and **c)** Expanded Landings by district and category.

(a)

Landings Categories in Old Form (1974-1986)	
CODE	NAME
POT_SP_GP	POT FISH SNAPPER GROUPE
POT_OTH	POT FISH ALL OTHERS
NET_SP_GP	NET FISH SNAPPER GROUPE
NET_OTH	NET FISH ALL OTHERS
HK_SP_GP	HOOK FISH SNAPPER GROUPE
HK_OTH	HOOK FISH ALL OTHERS
SPR_SP_GP	SPEAR/GUN FISH SNAPPER GROUPE
SPR_OTH	SPEAR/GUN FISH ALL OTHERS
LOBST_POT	LOBSTER BY POT
LOBST_HAND	LOBSTER BY HAND
OTHERS	OTHER KINDS CONCH, WHELK, OCTOPUS, SQUID, CLAM, OYSTERS

(b) Reported Landings by District
Old Form (1974-1986)

CATEGORY	STT/STJ N=65890	STX N=25706	TOTAL N=91596
POT_SP_GP	671447	111164	782611
POT_OTH	3255264	643965	3899229
NET_SP_GP	75803	12049	87851
NET_OTH	499269	44149	543417
HK_SP_GP	104877	52636	157513
HK_OTH	364448	313770	678218
SPR_SP_GP	7797	11905	19702
SPR_OTH	46730	21032	67761
LOBST_POT	310120	26504	336624
LOBST_HAND	47397	21109	68506
OTHERS	43280	134638	177917
TOTAL	5426430	1392919	6819349

(c) Expanded Landings by District
Old Form (1974-1986)

CATEGORY	STT/STJ N=56241	STX N=46350	TOTAL N=102591
POT_SP_GP	1498985	299277	1798262
POT_OTH	6869132	1306754	8175886
NET_SP_GP	171463	31918	203382
NET_OTH	1097429	82546	1179975
HK_SP_GP	239205	144602	383808
HK_OTH	766954	611108	1378061
SPR_SP_GP	17733	36962	54695
SPR_OTH	95732	42769	138501
LOBST_POT	666077	73545	739622
LOBST_HAND	104391	45871	150262
OTHERS	90882	325085	415967
TOTAL	11617984	3000438	14618422

Table 9. U.S. Virgin Islands, Old Form (1974-1986). Reported Landings by year, district and category .

Reported Landings by District and Category (Old Reports 1974-1986)

ST. THOMAS/ ST. JOHN (STT/STJ)

YR	Nrecords	POT_SP_GP	POT_OTH	NET_SP_GP	NET_OTH	HK_SP_GP	HK_OTH	SPR_SP_GF	SPR_OTH	LOBST_POT	LOBST_HANC	OTHERS	TOTAL
1974	838	13,352	31,951	4,694	1,530	539	2,619		90	1,584	1,159	138	57,656
1975	4,267	56,035	165,490	6,614	12,781	2,136	12,061	953	360	4,909	1,887	1,561	264,787
1976	3,753	39,191	147,746	2,708	3,604	11,738	12,468	210	80	5,405	1,337	145	224,631
1977	3,984	41,852	146,752	3,936	19,584	13,123	20,026	70	176	15,178	4,779	761	266,236
1978	5,468	66,288	238,356	2,716	77,627	8,605	20,827	1,256	1,356	50,513	8,168	2,314	478,023
1979	5,547	65,996	255,986	8,615	92,578	13,923	26,517	809	5,238	22,904	2,858	5,541	500,965
1980	5,168	89,660	245,834	8,908	62,187	18,885	29,209	2,565	4,976	34,054	5,742	4,328	506,347
1981	5,157	125,648	244,288	12,139	50,063	16,911	23,673	300	4,576	34,919	3,140	2,728	518,385
1982	5,630	119,664	260,743	10,352	33,010	10,142	15,077	1,038	5,711	35,581	3,045	5,452	499,814
1983	6,827	32,556	426,613	5,470	42,181	2,710	38,316	277	10,586	37,298	3,527	6,853	606,387
1984	7,133	16,153	435,868	665	40,501	1,603	61,190	33	9,009	30,892	5,088	5,540	606,540
1985	7,986	2,102	468,786	3,528	38,390	3,564	63,495	287	2,836	25,846	3,468	4,023	616,324
1986	4,128	2,950	186,853	5,430	25,163	998	38,942		1,736	11,039	3,200	3,898	280,208
Total	65,886	671,447	3,255,264	75,775	499,199	104,877	364,417	7,797	46,730	310,120	47,397	43,280	5,426,301

ST. CROIX (STX)

YR	N Records	POT_SP_GP	POT_OTH	NET_SP_GP	NET_OTH	HK_SP_GP	HK_OTH	SPR_SP_GF	SPR_OTH	LOBST_POT	LOBST_HANC	OTHERS	TOTAL
1975	570	6,267	21,174	2,328	741	323	1,670	80	150	4,958	255	262	38,208
1976	754	6,458	32,816	50	520	972	14,409	20	241	3,302	321	741	59,850
1977	724	6,061	22,756		90	1,355	18,963	919	465	6,108	2,058	7,737	66,511
1978	989	12,501	21,459	169	611	1,811	10,923	5,494	2,609	1,435	3,546	17,302	77,859
1979	628	30,644	21,960	1,473	5,132	771	7,011	2,742	259	2,724	354	4,978	78,047
1980	790	5,358	20,068	1,503	2,129	2,601	5,349	592	2,185	408	868	11,979	53,040
1981	1,899	6,344	38,979	1,445	3,885	14,434	18,862	817	1,837	703	1,413	21,642	110,360
1982	3,367	10,529	83,373	1,938	2,001	14,913	36,033	999	1,003	1,256	1,436	16,878	170,358
1983	5,290	14,466	136,526	2,568	4,517	6,707	58,818	157	4,359	3,249	1,231	12,699	245,296
1984	6,729	8,111	157,193	505	14,205	6,680	94,140	73	5,076	1,591	5,974	24,224	317,770
1985	3,966	4,426	87,663	70	10,318	2,070	47,594	12	2,848	771	3,655	16,196	175,621
Total	25,706	111,164	643,965	12,049	44,149	52,636	313,770	11,905	21,032	26,504	21,109	134,638	1,392,919

Table 10. U.S. Virgin Islands, Old Form (1974-1986). Expanded Landings by year, district and category .

Expanded Landings by District and Category (Old Reports 1974-1986)

STT/STJ

YR	NRecords	POT_SP_GP	POT_OTH	NET_SP_GP	NET_OTH	HK_SP_GP	HK_OTH	SPR_SP_GP	SPR_OTH	LOBST_POT	LOBST_HAND	OTHERS	TOTAL
1974	838	31,378	75,084	11,031	3,596	1,267	6,155		212	3,722	2,724	324	135,492
1975	4,267	131,683	388,902	15,543	30,035	5,020	28,343	2,240	846	11,535	4,434	3,667	622,248
1976	3,753	92,099	347,203	6,364	8,469	27,584	29,299	494	188	12,701	3,142	341	527,883
1977	3,984	98,352	344,866	9,250	46,022	30,839	47,060	165	414	35,667	11,231	1,788	625,653
1978	5,468	155,776	560,136	6,383	182,424	20,222	48,943	2,950	3,185	118,704	19,195	5,437	1,123,355
1979	5,548	155,091	601,567	20,245	217,558	32,719	62,314	1,900	12,310	53,825	6,716	13,021	1,177,267
1980	5,168	210,701	577,711	20,934	146,140	44,380	68,641	6,027	11,693	80,026	13,494	10,170	1,189,916
1981	5,157	276,489	552,300	26,971	115,546	38,688	52,860	660	10,519	76,806	6,971	5,882	1,163,691
1982	5,631	247,629	523,118	21,378	66,583	20,910	30,602	2,167	11,281	72,450	6,304	10,927	1,013,348
1983	6,829	61,098	781,223	10,714	76,450	5,258	69,234	535	19,085	69,171	6,060	12,692	1,111,520
1984	7,133	27,606	720,441	1,064	66,800	2,590	101,583	56	15,361	51,911	8,593	9,330	1,005,335
1985	7,986	3,974	946,268	8,501	77,162	7,325	128,072	540	6,454	52,954	7,815	7,909	1,246,974
1986	4,128	7,110	450,315	13,086	60,643	2,405	93,849		4,184	26,605	7,712	9,394	675,301
Total	65,890	1,498,985	6,869,132	171,463	1,097,429	239,205	766,954	17,733	95,732	666,077	104,391	90,882	11,617,984

STX

YR	N Records	POT_SP_GP	POT_OTH	NET_SP_GP	NET_OTH	HK_SP_GP	HK_OTH	SPR_SP_GP	SPR_OTH	LOBST_POT	LOBST_HAND	OTHERS	TOTAL
1975	570	6,267	21,174	2,328	741	323	1,670	80	150	4,958	255	262	38,208
1976	754	6,458	32,816	50	520	972	14,409	20	241	3,302	321	741	59,850
1977	724	6,061	22,756		90	1,355	18,963	919	465	6,108	2,058	7,737	66,511
1978	989	12,501	21,459	169	611	1,811	10,923	5,494	2,609	1,435	3,546	17,302	77,859
1979	628	30,644	21,960	1,473	5,132	771	7,011	2,742	259	2,724	354	4,978	78,047
1980	790	5,358	20,068	1,503	2,129	2,601	5,349	592	2,185	408	868	11,979	53,040
1981	1,899	6,344	38,979	1,445	3,885	14,434	18,862	817	1,837	703	1,413	21,642	110,360
1982	3,367	10,529	83,373	1,938	2,001	14,913	36,033	999	1,003	1,256	1,436	16,878	170,358
1983	5,290	14,466	136,526	2,568	4,517	6,707	58,818	157	4,359	3,249	1,231	12,699	245,296
1984	6,729	8,111	157,193	505	14,205	6,680	94,140	73	5,076	1,591	5,974	24,224	317,770
1985	3,966	4,426	87,663	70	10,318	2,070	47,594	12	2,848	771	3,655	16,196	175,621
Total	25,706	111,164	643,965	12,049	44,149	52,636	313,770	11,905	21,032	26,504	21,109	134,638	1,392,919

Table 11. U.S. Virgin Islands, Old Form (1985-1999). **a)** Reported and **b)** Expanded Landings by district and calendar year.

(a) Reported Landings in OLD Form (1985-1999)

	STT/STJ		STX		ALL USVI	
	No. Records	Reported Landings (Lb)	No. Records	Reported Landings (Lb)	No. Records	Reported Landings (Lb)
1985	2	25			2	25
1986	3,826	287,875	2,170	126,736	5,996	414,611
1987	3,500	282,113	2,092	118,134	5,592	400,247
1988	30	9,401	223	58,200	253	67,601
1989	1,344	110,279	3,121	235,725	4,465	346,004
1990	3,017	568,491	4,203	385,395	7,220	953,885
1991	6,367	1,813,362	7,488	1,123,416	13,855	2,936,778
1992	7,327	1,023,831	6,033	822,151	13,360	1,845,982
1993	7,301	778,693	6,856	415,286	14,157	1,193,979
1994	6,553	707,145	7,990	560,989	14,543	1,268,133
1995	5,271	655,956	4,501	309,273	9,772	965,228
1996	4,438	626,085	1,424	113,774	5,862	739,859
1997	4,816	649,363	249	24,806	5,065	674,169
1998	2,280	281,514			2,280	281,514
1999	169	15,419			169	15,419
Total	56,241	7,809,550	46,350	4,293,883	102,591	12,103,433

(b) Expanded Landings from OLD Form (1985-1999)

	STT/STJ		STX		ALL USVI	
	No. Records	Expanded Landings (Lb)	No. Records	Expanded Landings (Lb)	No. Records	Expanded Landings (Lb)
1985	2	60			2	60
1986	3,826	702,285	2,170	286,996	5,996	989,281
1987	3,500	685,001	2,092	265,826	5,592	950,827
1988	30	21,898	223	96,496	253	118,393
1989	1,344	158,965	3,121	423,884	4,465	582,850
1990	3,017	844,319	4,203	826,939	7,220	1,671,258
1991	6,367	2,545,186	7,488	2,021,897	13,855	4,567,083
1992	7,327	1,349,784	6,033	1,334,222	13,360	2,684,006
1993	7,301	1,054,504	6,856	519,710	14,157	1,574,214
1994	6,553	989,270	7,990	661,482	14,543	1,650,752
1995	5,271	812,140	4,501	318,551	9,772	1,130,691
1996	4,438	710,172	1,424	116,674	5,862	826,846
1997	4,816	703,124	249	25,054	5,065	728,178
1998	2,280	311,386			2,280	311,386
1999	169	16,190			169	16,190
Total	56,241	10,904,283	46,350	6,897,730	102,591	17,802,014

Table 12. U.S. Virgin Islands, Old Form (1986-1999).**a)** Reported and **b)** Expanded Landings by district and category.

**(a) Reported Landings by District
Old Form (1986-1999)**

CATEGORY	STT/STJ	STX	TOTAL
	N=56,241	N=46,350	N=102,591
POTFISH	2625668	729975	3355643
REEFFISH	999731	1426608	2426339
FINFISH	1267148	668521	1935669
HOOKFISH	902105	575683	1477788
LOBSTER2	864035	145111	1009146
NETFISH	504537	233503	738039
PELAGIC	480062	237466	717528
CONCH	24075	188291	212366
BAITFISH	84727	3320	88046
SPEARF	32025	42387	74412
TUNA	2205	20111	22316
DORADO	1360	17743	19103
WHELK	14029	237	14266
OTHER2	7362	4928	12290
WAHOO	483		483
TOTAL	7809550	4293882	12103432

**(b) Expanded Landings by District
Old Form (1986-1999)**

CATEGORY	STT/STJ	STX	TOTAL
	N=56,241	N=46,350	N=102,591
POTFISH	3,676,703	1,006,495	4,683,198
REEFFISH	1,478,199	2,679,147	4,157,346
FINFISH	1,797,604	1,156,940	2,954,544
HOOKFISH	1,217,918	726,971	1,944,889
LOBSTER2	1,151,174	227,530	1,378,704
PELAGIC	674,936	411,551	1,086,486
NETFISH	669,215	281,292	950,507
CONCH	43,519	292,439	335,958
BAITFISH	102,484	4,049	106,533
SPEARF	42,632	53,563	96,195
TUNA	3,439	25,721	29,160
WHELK	26,290	396	26,686
OTHER2	17,296	8,930	26,226
DORADO	2,121	22,709	24,829
WAHOO	753		753
TOTAL	10,904,284	6,897,730	17,802,014

Table 13. U.S. Virgin Islands, Old Form (1985-1999). Reported Landings by year, district and category.

Reported Landings by Category (Old Form 1985-1999)

STT/STJ

YEAR	N Records	BAITFISH	CONCH	LOBSTER2	WHELK	FINFISH	HOOKFISH	REEFFISH	POTFISH	NETFISH	SPEARF	TUNA	DORADO	WAHOO	PELAGIC	OTHER2	TOTAL
1985	2	0	0	0	0	13	12	0	0	0	0	0	0	0	0	0	25
1986	3,826	1,907	11,226	1,748	47,558	203,792	20,196	1,448	0	0	0	0	0	0	0	0	287,875
1987	3,500	7,128	19,800	5,616	5,833	41,567	5,145	172,853	15,123	1,912	0	0	0	2,078	5,058	0	282,113
1988	30	1,420	641	0	3,467	112	416	0	0	0	0	0	0	1,041	2,304	0	9,401
1989	1,344	100	18	105	109,946	0	0	0	0	0	0	0	0	110	0	0	110,279
1990	3,017	0	92,384	175,676	217,807	0	0	0	0	0	0	0	0	82,624	0	0	568,491
1991	6,367	0	279,331	711,552	428,270	0	0	0	0	0	0	0	0	394,209	0	0	1,813,362
1992	7,327	9,895	25	43,753	1,017	370,515	85,216	238,147	233,143	40,187	1,934	0	0	0	0	0	1,023,831
1993	7,301	13,474	5,417	82,130	1,023	144,486	409,375	114,055	6,227	1,478	831	198	0	0	0	0	778,693
1994	6,553	13,952	1,889	61,741	3,782	149,912	387,958	82,238	4,133	727	529	285	0	0	0	0	707,145
1995	5,271	17,094	1,443	65,952	497	140,695	347,960	78,131	4,183	0	0	0	0	0	0	0	655,956
1996	4,438	12,067	2,601	85,465	45	120,508	337,158	63,142	5,101	0	0	0	0	0	0	0	626,085
1997	4,816	13,734	1,606	85,313	301	121,326	365,427	56,317	5,339	0	0	0	0	0	0	0	649,363
1998	2,280	4,408	539	36,279	0	48,023	161,215	29,301	1,749	0	0	0	0	0	0	0	281,514
1999	169	103	0	5	0	2,689	6,775	5,847	0	0	0	0	0	0	0	0	15,419

STX

YEAR	Nrecords	BAITFISH	CONCH	LOBSTER2	WHELK	FINFISH	HOOKFISH	REEFFISH	POTFISH	NETFISH	SPEARF	TUNA	DORADO	WAHOO	PELAGIC	OTHER2	TOTAL
1986	2,170	4,935	1,573	0	0	34,873	74,988	10,094	273	0	0	0	0	0	0	0	126,736
1987	2,092	5,750	1,546	0	274	29,682	393	67,703	9,990	147	0	0	0	1,621	1,028	0	118,134
1988	223	17,900	7,839	0	15,892	0	7,087	0	0	0	0	0	0	8,114	1,368	0	58,200
1989	3,121	13,041	7,990	0	19,624	0	188,070	0	0	0	0	0	0	7,000	0	0	235,725
1990	4,203	10,283	15,118	0	26,300	0	328,989	0	0	0	0	0	0	4,705	0	0	385,395
1991	7,488	32	36,161	16,206	221	325,529	315	540,681	0	0	0	0	0	201,739	2,532	0	1,123,416
1992	6,033	19,783	40,419	0	280,903	0	361,389	98,844	6,527	0	0	0	0	14,287	0	0	822,151
1993	6,856	648	22,644	30,497	0	93,467	197,665	29,790	23,462	12,162	4,952	0	0	0	0	0	415,286
1994	7,990	2,108	33,876	17,691	16	224,217	179,142	71,221	11,978	7,949	12,791	0	0	0	0	0	560,989
1995	4,501	532	23,918	3,375	0	137,890	64,434	79,125	0	0	0	0	0	0	0	0	309,273
1996	1,424	0	969	0	0	55,059	24,462	33,283	0	0	0	0	0	0	0	0	113,774
1997	249	0	1,888	0	0	180	22,738	0	0	0	0	0	0	0	0	0	24,806

Table 14. U.S. Virgin Islands, Old Form (1985-1999). Expanded Landings by year, district and category.

Expanded Landings by Category (Old Form 1985-1999)

STT/STJ

YEAR	N Records	BAITFISH	CONCH	LOBSTER2	WHELK	FINFISH	HOOKFISH	REEFFISH	POTFISH	NETFISH	SPEARF	TUNA	DORADO	WAHOO	PELAGIC	OTHER2	TOTAL
1985	2						31		29								60
1986	3,826		4,651	27,384	4,249		116,037		497,172	49,259	3,533						702,285
1987	3,500		16,906	47,794	13,332	13,666	101,384	12,155	421,433	36,892	4,657				4,879	11,905	685,001
1988	30		3,323	1,500		8,113	161	973							2,436	5,391	21,898
1989	1,344		187	34		196		158,342							206		158,965
1990	3,017			126,566		240,676		363,882							113,195		844,319
1991	6,367			389,639		1,001,412		599,915							554,221		2,545,186
1992	7,327	11,280	29	49,878	1,159	533,542	97,146	342,932	265,801	45,813	2,204						1,349,784
1993	7,301	17,544	8,291	108,847	1,566		194,554		556,819	155,277	7,697	2,306	1,296	308			1,054,504
1994	6,553	18,931	2,945	87,565	4,984		211,182		541,230	114,237	5,794	1,133	824	445			989,270
1995	5,271	21,235	1,777	81,571	621		174,436		430,622	96,738	5,141						812,140
1996	4,438	13,687	3,077	97,525	48		136,290		381,731	71,916	5,899						710,172
1997	4,816	14,812	1,736	92,614	331		130,764		396,355	60,746	5,765						703,124
1998	2,280	4,887	598	40,253	0		53,109		178,398	32,198	1,941						311,386
1999	169	108	0	5	0		2,823		7,114	6,139	0						16,190

STX

YEAR	N Records	BAITFISH	CONCH	LOBSTER2	WHELK	FINFISH	HOOKFISH	REEFFISH	POTFISH	NETFISH	SPEARF	TUNA	DORADO	WAHOO	PELAGIC	OTHER2	TOTAL
1986	2,170		11,202	3,571			78,992		169,697	22,913	620						286,996
1987	2,092		12,379	3,373		537	67,319	772	153,305	22,653	334				3,154	1,999	265,826
1988	223		29,626	12,787		26,247		11,246							13,963	2,627	96,496
1989	3,121		22,961	14,135		31,511		343,774							11,503		423,884
1990	4,203		21,657	31,796		57,826		705,605							10,055		826,939
1991	7,488	54	70,139	31,177	376	563,323	536	1,003,400							348,588	4,304	2,021,897
1992	6,033		31,608	64,180		477,495		614,350	114,708		7,593				24,288		1,334,222
1993	6,856	829	27,945	38,176			119,631		243,400	38,131	29,699	15,564	6,336				519,710
1994	7,990	2,617	40,285	21,973	20		261,579		211,346	81,814	15,318	10,157	16,372				661,482
1995	4,501	547	24,636	3,476			142,026		66,367	81,499							318,551
1996	1,424			979			56,707		24,707	34,282							116,674
1997	249			1,907			182		22,966								25,054

Table 15. U.S. Virgin Islands, New Form (1994-2002). **a)** Reported and **b)** Expanded Landings by district and calendar year.

(a) Reported Landings in NEW Form (1994-2002)

Year	STT/STJ		STX		ALL USVI	
	Nrecords	Reported Landings	Nrecords	Reported Landings	Nrecords	Reported Landings
1994			802	6,196	802	6,196
1995			1,152	2,768	1,152	2,768
1996			8,965	352,955	8,965	352,955
1997	539	54,002	13,769	589,749	14,308	643,751
1998	2,455	316,473	8,343	366,995	10,798	683,468
1999	4,898	575,376	9,783	537,499	14,681	1,112,874
2000	5,801	589,072	11,477	748,373	17,278	1,337,444
2001	6,780	747,943	13,747	893,773	20,527	1,641,717
2002	3,564	410,212	7,774	515,437	11,338	925,649
Total	24,037	2,693,077	75,812	4,013,745	99,849	6,706,822

(b) Reported Landings in NEW Form (1994-2002)

Year	STT/STJ		STX		ALL USVI	
	Nrecords	Expanded Landings	Nrecords	Expanded Landings	Nrecords	RepLandings
1994			802	6,382	1,152	2,851
1995			1,152	2,851	8,965	356,499
1996			8,965	356,499	14,308	661,894
1997	539	59,940	13,769	601,953	10,798	715,889
1998	2,455	335,739	8,343	380,150	14,681	1,157,768
1999	4,898	604,144	9,783	553,624	17,278	1,389,349
2000	5,801	618,525	11,477	770,824	20,527	1,705,927
2001	6,780	785,341	13,747	920,586	11,338	961,623
2002	3,564	430,722	7,774	530,900	99,849	6,958,181
Total	24,037	2,834,412	75,812	4,123,770	198,896	13,909,981

Table 16. U.S. Virgin Islands, New Form (1994-2002).**a)** Reported and **b)** Expanded Landings by district and category.

(a) Reported Landings by District New Form (1994-2002)				(b) Expanded Landings by District New Form (1994-2002)			
CATEGORY	STT/STJ (N=24037)	STX (N=75812)	TOTAL N=(99849)	CATEGORY	STT/STJ (N=24037)	STX (N=75812)	TOTAL N=(99849)
PARROT	168,896	1,460,000	1,628,896	PARROT	177,726	1,495,917	1,673,643
SNAPPER	599,241	510,878	1,110,119	SNAPPER	630,487	524,791	1,155,278
LOBSTER	334,347	360,410	694,757	LOBSTER	351,471	371,248	722,719
TRIGGER	321,948	125,418	447,366	TRIGGER	339,114	128,646	467,760
CONCH	6,336	333,473	339,809	CONCH	6,658	343,687	350,345
GROUPE	191,612	140,238	331,850	GROUPE	201,309	144,221	345,530
GRUNT	158,789	171,128	329,917	GRUNT	167,210	175,344	342,554
SURGEON	134,323	168,588	302,912	SURGEON	141,263	172,622	313,885
JACK	210,000	84,504	294,504	JACK	217,931	86,411	304,342
TUNA	68,084	160,000	228,084	TUNA	71,780	159,977	231,757
DOLPHIN	25,181	161,073	186,253	DOLPHIN	26,440	165,905	192,344
BAITFISH	108,834	56,329	165,163	BAITFISH	114,589	57,953	172,542
SHELLFISH	107,591	40,662	148,253	SHELLFISH	113,195	41,628	154,823
PORGY	71,308	14,998	86,306	PORGY	74,921	15,447	90,368
WAHOO	14,772	53,287	68,059	WAHOO	15,580	54,680	70,260
BARRA	9,865	52,967	62,832	BARRA	10,406	54,293	64,700
MACKEREL	30,425	25,648	56,073	MACKEREL	32,190	26,376	58,566
ANGEL	46,286	7,976	54,262	ANGEL	48,823	8,058	56,881
DORADO	3,970	46,198	50,168	DORADO	4,243	46,660	50,903
FINFISH	34,864		34,864	FINFISH	37,102		37,102
GOAT	4,593	14,303	18,896	GOAT	4,837	14,644	19,482
WHELK	11,162	2,715	13,877	WHELK	11,748	2,796	14,544
SQUIRREL	9,968	141	10,109	SQUIRREL	10,466	145	10,612
SHARK	7,589	1,756	9,345	SHARK	7,973	1,782	9,755
OFFSHORE		7,905	7,905	OFFSHORE		8,142	8,142
MARLIN		7,715	7,715	MARLIN		7,946	7,946
FAD	25	3,664	3,689	FAD	26	3,774	3,800
REDMAN	3,375		3,375	REDMAN	3,544		3,544
GAR		1,093	1,093	GAR		1,121	1,121
HOGFISH	1,002		1,002	HOGFISH	1,054		1,054
KINGFISH	430		430	KINGFISH	452		452
PAMPANO		14	14	PAMPANO		14	14
WHTMARLIN	13		13	WHTMARLIN	14		14
BLUEMARLIN	9		9	BLUEMARLIN	9		9
SILVER		4	4	SILVER		4	4
TOTAL	2,693,077	4,013,745	6,706,822	TOTAL	2,834,412	4,123,769	6,958,181

Table 17. U.S. Virgin Islands, New Form (1994-2002). Reported Landings by year, district and category.

Reported Landings by Category (New Form 1994-2002)

STT/STJ															
Yr	Nrows	GROUPER	SNAPPER	GRUNT	JACK	SURGEON	PARROT	SHELLFISH	TRIGGER	PORGY	BARRA	GOAT	MACKEREL	DOLPHIN	TUNA
1994															
1995															
1996															
1997	539	1,145	10,197	3,913	4,958	1,839	3,314	1,823	8,023	303	100	122	1,513		3,847
1998	2,455	24,852	64,210	23,920	13,030	15,860	20,252	13,337	45,298	2,835	1,340	1,563	4,080		2,841
1999	4,898	46,446	125,347	37,858	35,232	29,939	38,087	22,656	68,434	12,747	1,572	1,279	5,764	591	13,900
2000	5,801	42,617	145,815	31,592	50,390	30,280	34,067	25,031	69,767	18,742	1,260	716	5,835	4,447	15,726
2001	6,780	51,264	171,701	40,251	65,243	36,926	51,109	29,870	83,196	25,193	2,376	711	6,601	9,729	16,620
2002	3,564	25,288	81,972	21,255	38,177	19,480	22,068	14,874	47,231	11,489	3,217	203	6,633	10,414	15,150

Yr	CONCH	WHELK	MARLIN	SQUIRRE	SHARK	ANGEL	PAMPANO	GAR	OFFSHORE	SILVER	HOGFISH	KINGFISH	REDMAN	WHTMARLIN
1994														
1995														
1996														
1997		66	458			77	2,064				14			
1998		176	173			428	13,610				407			
1999		1,630	1,667			1,077	12,822				332	27		
2000		943	1,920		2,335	8	4,112				12	403		
2001		1,977	6,333		5,786	109	8,408				222		1,860	3
2002		1,544	611		1,847	5,891	5,271				15		1,515	10

STX

Yr	Nrows	GROUPER	SNAPPER	GRUNT	JACK	SURGEON	PARROT	SHELLFISH	TRIGGER	PORGY	BARRA	GOAT	MACKEREL	DOLPHIN	TUNA
1994	802	509	5,319					138							
1995	1,152	119	2,494					155							
1996	8,965	14,612	51,252	23,407	17,634	25,244	121,202	6,663	14,836		7,337	2,016	1,028		14,685
1997	13,769	19,760	86,161	22,544	13,745	26,069	248,634	6,111	11,976		5,793	2,384	1,046		20,822
1998	8,343	16,474	55,272	10,937			185,194	2,177	9,751						
1999	9,783	22,104	62,089	29,543	9,278	17,595	234,276	7,154	23,241	1,592	5,330	1,900	2,061	11,832	24,297
2000	11,477	21,652	73,151	28,985	11,749	34,413	245,591	5,794	21,891	3,277	12,216	3,340	7,847	42,875	37,545
2001	13,747	26,514	110,500	36,561	21,687	39,748	269,157	7,806	27,950	5,681	13,620	2,674	7,496	51,839	47,931
2002	7,774	18,495	64,640	19,153	10,411	25,521	151,311	4,666	15,774	4,448	8,672	1,989	6,171	54,526	10,727

Yr	CONCH	WHELK	MARLIN	SQUIRRE	SHARK	ANGEL	PAMPANO	GAR	OFFSHORE	SILVER	HOGFISH	KINGFISH	REDMAN	WHTMARLIN
1994														
1995														
1996		13,670	0			1,234	5,075		250					
1997		38,149	0			100	2,757							
1998		43,890												
1999		17,101	607	600	19	80	20	14	100	3,650				
2000		71,921	1,068	5,740	89	282	32		303	4,045	4			
2001		89,841	403	1,375	6	60	52		215	210				
2002		58,902	637		27		40		225					

Table 18. U.S. Virgin Islands, New Form (1994-2002). Expanded Landings by year, district and category.

Expanded Landings by Category (New Form 1994-2002)

STT/STJ

Yr	Nrows	GROUPER	SNAPPER	GRUNT	JACK	SURGEON	PARROT	SHELLFISH	TRIGGER	PORGY	BARRA	GOAT	MACKEREL	DOLPHIN	TUNA
1994															
1995															
1996															
1997	539	1,271	11,318	4,343	5,503	2,041	3,678	2,023	8,905	336	111	135	1,679		4,270
1998	2,455	26,142	68,093	25,363	13,934	16,766	21,451	14,120	48,151	3,006	1,449	1,648	4,437		3,044
1999	4,898	48,769	131,614	39,751	36,993	31,435	39,991	23,789	71,856	13,384	1,650	1,343	6,052	621	14,595
2000	5,801	44,747	153,105	33,171	52,909	31,794	35,770	26,282	73,255	19,679	1,323	751	6,126	4,669	16,513
2001	6,780	53,827	180,286	42,264	68,505	38,772	53,664	31,364	87,355	26,452	2,495	747	6,931	10,215	17,451
2002	3,564	26,553	86,071	22,318	40,086	20,454	23,172	15,617	49,592	12,064	3,378	213	6,964	10,934	15,908

Yr	CONCH	WHELK	MARLIN	SQUIRE	SHARK	ANGEL	PAMPANO	GAR	OFFSHORE	SILVER	HOGFISH	KINGFISH	REDMAN	WHTMARLIN
1994														
1995														
1996														
1997		73	508			85	2,291				16			
1998		186	182			449	14,389				428			
1999		1,712	1,750			1,131	13,463				349	28		
2000		990	2,016		2,452	8	4,318				13	423		
2001		2,076	6,650		6,075	114	8,828				233		1,953	3
2002		1,621	642		1,940	6,185	5,534				16		1,591	11

STX

Yr	Nrows	GROUPER	SNAPPER	GRUNT	JACK	SURGEON	PARROT	SHELLFISH	TRIGGER	PORGY	BARRA	GOAT	MACKEREL	DOLPHIN	TUNA
1994	802	524	5,479					142							
1995	1,152	123	2,569					160							
1996	8,965	14,758	51,765	23,642	17,810	25,497	122,427	6,730	14,985		7,411	2,036	1,038		14,831
1997	13,769	20,306	87,998	22,770	13,882	26,331	254,431	6,172	12,096		5,850	2,408	1,056		21,030
1998	8,343	17,084	57,289	11,265			191,715	2,242	10,043						
1999	9,783	22,767	63,951	30,429	9,556	18,122	241,304	7,369	23,938	1,640	5,490	1,956	2,123	12,187	25,026
2000	11,477	22,302	75,346	29,855	12,101	35,445	252,959	5,968	22,548	3,375	12,582	3,440	8,083	44,162	38,671
2001	13,747	27,309	113,815	37,657	22,338	40,940	277,231	8,040	28,788	5,851	14,029	2,754	7,720	53,394	49,369
2002	7,774	19,050	66,579	19,727	10,723	26,287	155,850	4,806	16,247	4,581	8,932	2,049	6,356	56,162	11,049

Yr	CONCH	WHELK	MARLIN	SQUIRE	SHARK	ANGEL	PAMPANO	GAR	OFFSHORE	SILVER	HOGFISH	KINGFISH	REDMAN	WHTMARLIN
1994														
1995														
1996		13,807	0			1,246	5,126		253					
1997		39,338	0			101	2,784							
1998		45,645												
1999		17,614	625	618	20	82	21	14	103	3,760				
2000		74,078	1,100	5,912	92	290	33		312	4,166	4			
2001		92,536	415	1,416	6	62	54		221	216				
2002		60,669	656		28		41		232					

Table 19. Proportion (percent) of reported/expanded landings by species category and gear type from NEW Form (1994-2002).

Proportion of Landings By Gear Type from New Form (1994-2002)

GEAR TYPE	% of Total															
	byGear	GROUPER	SNAPPER	GRUNT	JACK	SURGEON	PARROT	SHELLFIS	TRIGGER	PORGY	BARRA	GOAT	MACKERE	DOLPHIN	TUNA	
Unknown	0.92%	3.77%	0.59%	0.34%	2.95%	5.45%	0.24%	2.86%	0.17%	0.02%	0.70%	0.23%	0.12%	0.00%		
Castnets	0.54%	0.00%	0.02%	0.01%	0.67%	0.00%	0.00%			0.01%	0.05%		0.10%	0.06%	1.75%	
Free Diving	1.27%	1.26%	0.61%	0.50%	0.06%	0.27%	1.02%	0.22%	0.34%	0.46%	1.86%	0.10%	0.90%		0.01%	
Gillnets	9.34%	1.27%	1.18%	4.78%	2.94%	11.23%	32.65%	3.02%	2.32%	2.76%	5.74%	2.89%	0.31%	0.06%		
Gillnets/SeineNets	0.31%	0.06%	0.03%	0.28%	0.21%	0.78%	0.87%	0.21%	0.11%	0.42%	0.27%	0.85%	0.02%			
Gillnets/Traps	0.04%			0.02%	0.00%	0.03%	0.13%	0.14%	0.02%	0.03%						
Line Fishing	24.79%	26.47%	60.63%	6.43%	36.49%	1.01%	0.81%	1.13%	4.47%	2.27%	67.60%	6.91%	87.23%	98.13%	94.03%	
Lines/Castnets	0.06%	0.02%	0.27%		0.03%			0.00%			0.11%	0.00%	0.17%		0.02%	
Lines/SeineNets	0.02%		0.02%	0.04%	0.03%	0.01%	0.01%	0.00%	0.01%	0.02%	0.09%	0.21%				
No Fishing	0.01%					0.01%					0.03%			0.10%		
SF Diving/Lines	0.03%	0.03%	0.03%	0.04%	0.01%	0.05%	0.01%	0.00%	0.02%		0.20%		0.10%	0.04%	0.02%	
SF Diving/SeineNets	1.73%	0.25%	0.20%	1.45%	1.96%	3.21%	5.21%	0.63%	0.63%	1.41%	0.93%	1.59%		0.17%		
Scuba	15.63%	9.79%	4.89%	5.89%	5.57%	3.91%	14.76%	2.03%	6.50%	5.47%	12.19%	4.98%	1.18%	0.02%	0.02%	
Scuba/FreeDiving	0.07%	0.09%	0.01%	0.18%	0.00%	0.00%	0.02%	0.04%	0.06%	0.02%	0.05%	0.03%	0.11%		0.02%	
Scuba/Gillnets	0.51%	0.05%	0.05%	0.29%	0.04%	1.17%	1.69%	0.20%	0.10%	0.15%	0.48%	0.02%				
Scuba/Traps	0.02%	0.06%	0.02%	0.04%	0.01%	0.04%	0.01%	0.05%	0.02%	0.07%						
Seine Nets	5.37%	1.01%	6.35%	1.37%	45.67%	1.57%	4.71%	0.46%	0.24%	0.21%	0.61%	1.49%	5.16%	0.48%	3.75%	
Traps/Lines	37.86%	55.85%	25.06%	78.30%	3.34%	71.21%	37.84%	88.98%	84.90%	86.69%	9.05%	80.70%	4.61%	0.95%	0.38%	
Traps/Nets/Lines	0.05%	0.02%	0.04%	0.04%	0.01%	0.05%	0.02%	0.00%	0.07%	0.00%	0.04%	0.01%				

GEAR TYPE	% of Total													
	LOBST	CONCH	WHELK	MARLIN	SQUIRREL	SHARK	ANGEL	PAMPANOGAR	OFFSHOR	SILVER	HOGFISH	KINGFISH	REDMAN	WHTMARI
Unknown	0.22%	1.28%					0.53%		10.82%					
Castnets	0.02%		0.02%				10.83%					6.28%		
Free Diving	1.56%	8.54%	70.13%					1.69%						
Gillnets	0.63%	0.84%						1.37%						
Gillnets/SeineNets	0.11%	0.02%												
Gillnets/Traps	0.01%	0.01%												
Line Fishing	0.19%	0.16%	1.28%	97.31%	1.32%	86.23%	0.70%	100.00%	87.83%	2.21%	100.00%		75.12%	100.00%
Lines/Castnets	0.00%													
Lines/SeineNets														
No Fishing	0.00%	0.02%		2.69%	0.03%					2.34%				
SF Diving/Lines	0.05%	0.05%						0.27%						
SF Diving/SeineNets	0.33%	0.42%						0.40%						
Scuba	48.65%	87.73%	17.05%		0.08%				65.78%		2.00%			
Scuba/FreeDiving	0.33%	0.01%						1.10%						
Scuba/Gillnets	0.09%	0.16%												
Scuba/Traps	0.03%	0.05%						0.21%						
Seine Nets	0.15%	0.35%	11.23%			2.83%	0.11%		0.89%					
Traps/Lines	47.62%	0.37%	0.28%		98.57%	0.11%	85.97%		1.35%	28.78%		98.00%	18.60%	100.00%
Traps/Nets/Lines														

Table 20. Proportion (percent) of snapper and grouper landings by gear type from NEW Form (1994-2002) for the whole U.S. Virgin Islands.

New Form (1994-2002)		
GEARTYPE	SNAPPER	GROUPE
Line Fishing	60.6%	26.5%
Traps/Lines	25.1%	55.8%
Seine Nets	6.3%	1.0%
Scuba	4.9%	9.8%
Gillnets	1.2%	1.3%
Free Diving	0.6%	1.3%
Unknown	0.6%	3.8%
Lines/Castnets	0.3%	0.0%
SF Diving/Seine Nets	0.2%	0.3%

Table 21. Estimated reported and expanded total landings for St. Thomas/St. John and St. Croix, years 1974-2002.

Reported Total Landings				Expanded Total Landings			
Year	STT/STJ	STX	TOTAL	Year	STT/STJ	STX	TOTAL
1974	57,656	0	57,656	1974	135,492	0	135,492
1975	264,787	38,208	302,995	1975	622,248	119,591	741,839
1976	224,631	59,850	284,481	1976	527,883	187,329	715,212
1977	266,236	66,511	332,747	1977	625,653	208,180	833,834
1978	478,023	77,859	555,883	1978	1,123,355	243,700	1,367,055
1979	500,965	78,047	579,012	1979	1,177,267	244,287	1,421,554
1980	506,347	53,040	559,387	1980	1,189,916	166,015	1,355,931
1981	518,385	110,360	628,744	1981	1,163,691	367,105	1,530,796
1982	499,814	170,358	670,171	1982	1,013,348	471,329	1,484,677
1983	606,387	245,296	851,682	1983	1,111,520	403,117	1,514,637
1984	606,540	317,770	924,311	1984	1,005,335	389,577	1,394,912
1985	616,349	175,621	791,970	1985	1,247,034	200,208	1,447,242
1986	568,083	126,736	694,819	1986	1,377,587	286,996	1,664,582
1987	282,113	118,134	400,247	1987	685,001	265,826	950,827
1988	9,401	58,200	67,601	1988	21,898	96,496	118,393
1989	110,279	235,725	346,004	1989	158,965	423,884	582,850
1990	568,491	385,395	953,885	1990	844,319	826,939	1,671,258
1991	1,813,362	1,123,416	2,936,778	1991	2,545,186	2,021,897	4,567,083
1992	1,023,831	822,151	1,845,982	1992	1,349,784	1,334,222	2,684,006
1993	778,693	415,286	1,193,979	1993	1,054,504	519,710	1,574,214
1994	707,145	567,185	1,274,329	1994	989,270	667,864	1,657,134
1995	655,956	312,041	967,996	1995	812,140	321,402	1,133,542
1996	626,085	466,728	1,092,813	1996	710,172	473,173	1,183,345
1997	703,365	614,555	1,317,920	1997	763,064	627,007	1,390,072
1998	597,987	366,995	964,982	1998	647,125	380,150	1,027,275
1999	590,795	537,499	1,128,293	1999	620,334	553,624	1,173,958
2000	589,072	748,373	1,337,444	2000	618,525	770,824	1,389,349
2001	747,943	893,773	1,641,717	2001	785,341	920,586	1,705,927
2002	410,212	515,437	925,649	2002	430,722	530,900	961,623

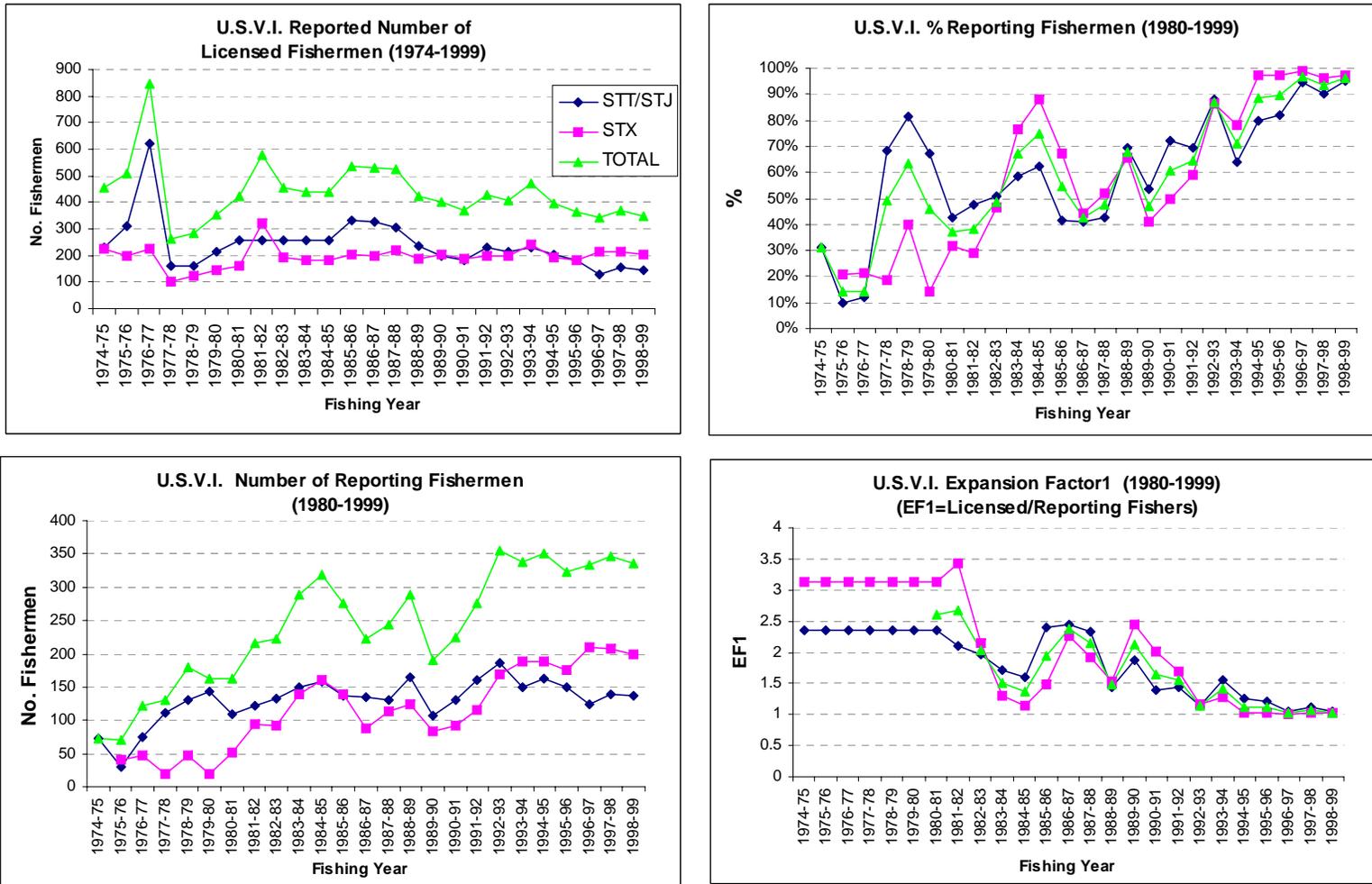


Figure 1. U.S. Virgin Islands. Number of licensed and reporting fishermen by year, percent reporting and estimates of Expansion Factor 1 from annual reports (DFW, 1981-2001). Data for years 1974-1979 was not available in annual reports; EF1 for those years was assumed constant and equal EF1 1980-81.

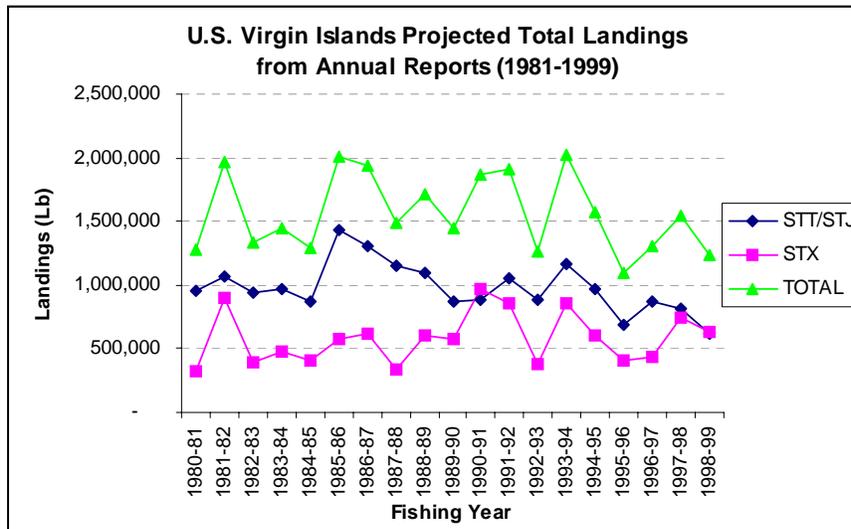
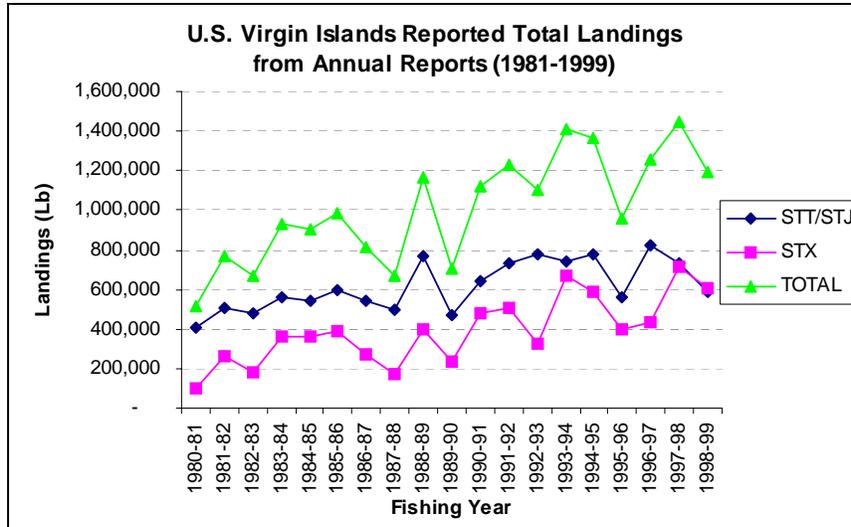


Figure 2. Reported and projected total landings by district and fishing year taken from annual performance reports (DFW,1981-2001). STT/STJ= St. Thomas/St. John, STX= St. Croix. Fishing year= July-June.

OLD Report Form (1974-1986)

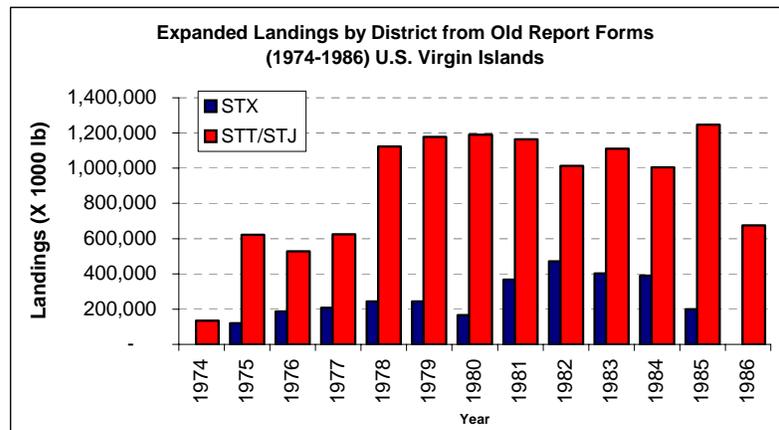
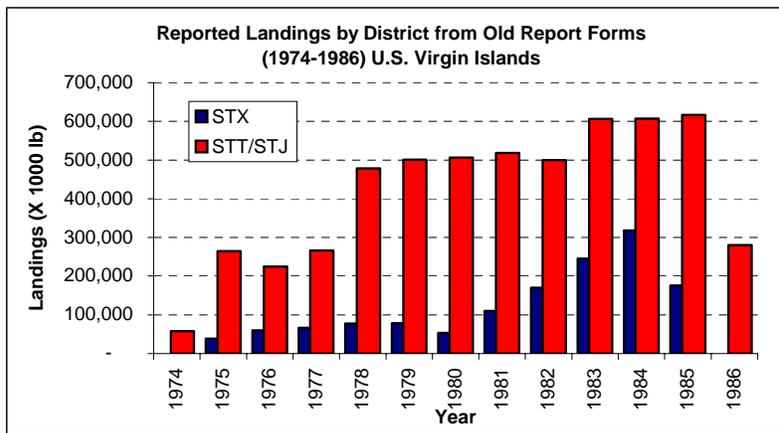
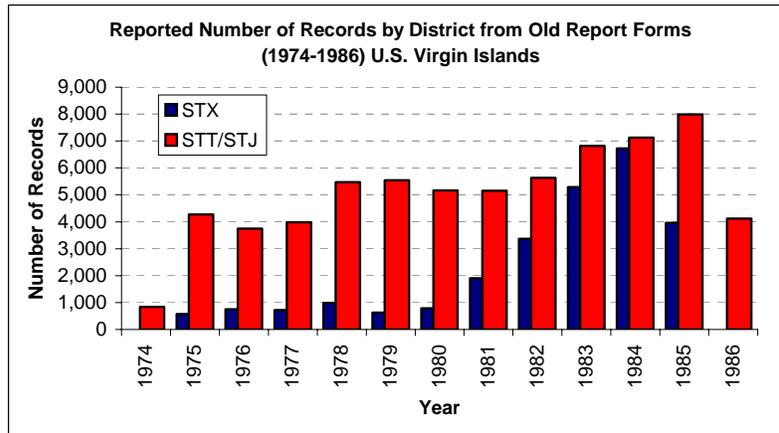


Figure 3. U.S. Virgin Islands. Old Form (1974-1986). Reported number of records, reported landings and expanded landings by year and district.

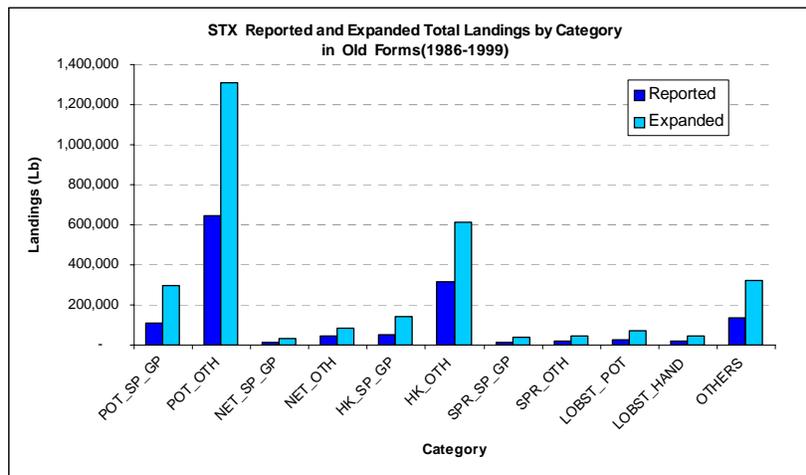
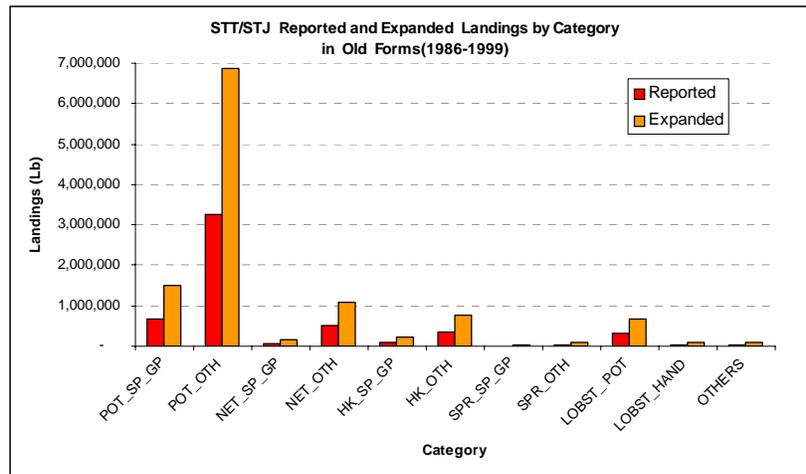
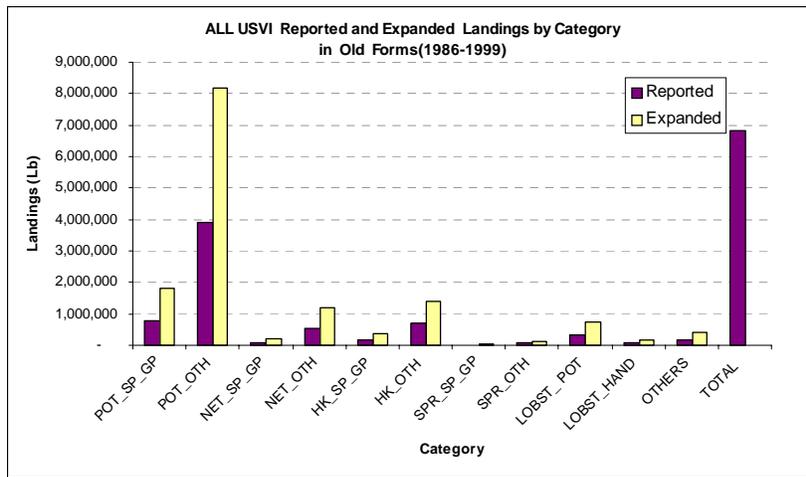


Figure 4. U.S. Virgin Islands, Old Form (1974-1986). Reported and Expanded Landings by district and category.

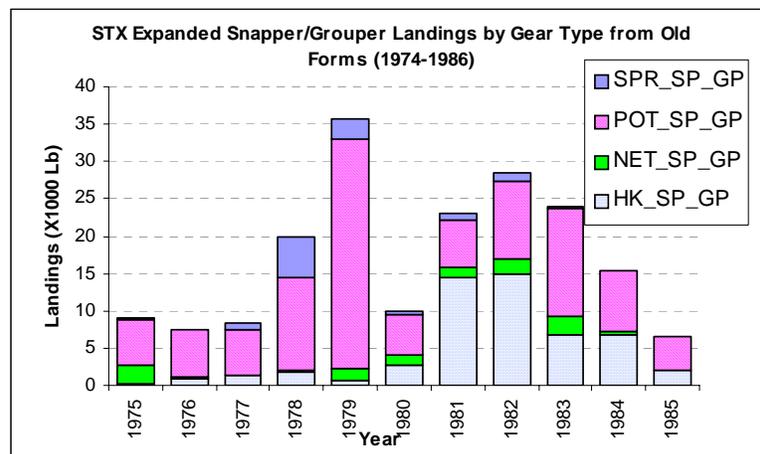
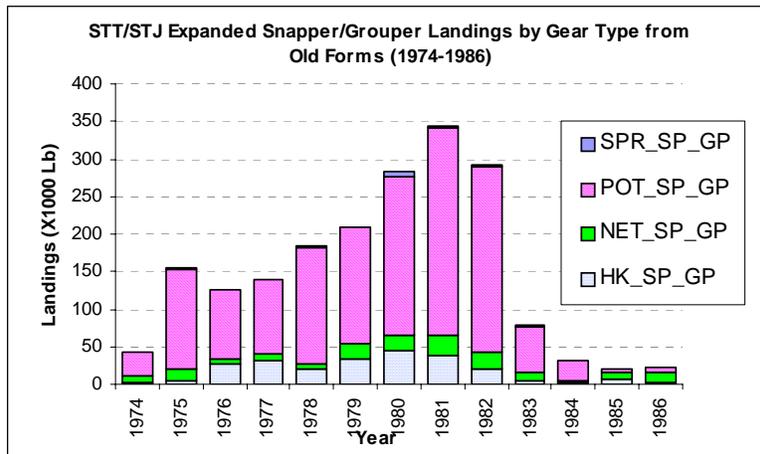


Figure 5. U.S. Virgin Islands, Old Form (1974-1986). **Snapper/Grouper** expanded landings by year and district.

OLD Report Form (1985-1999)

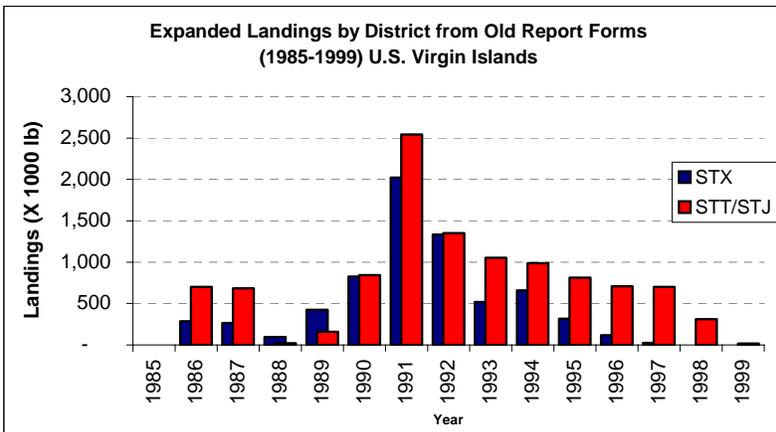
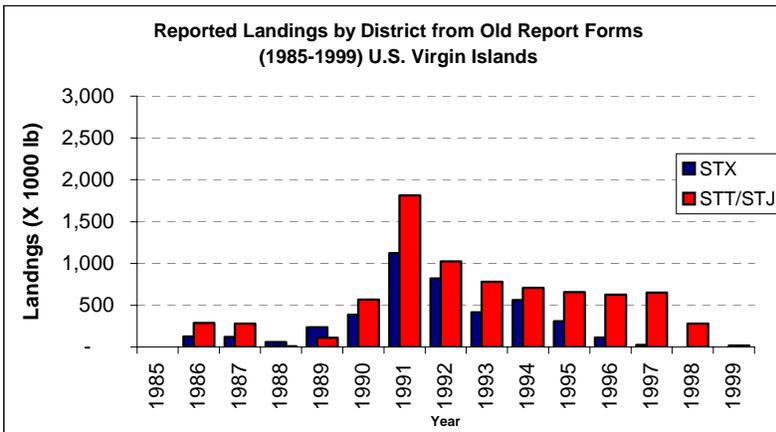
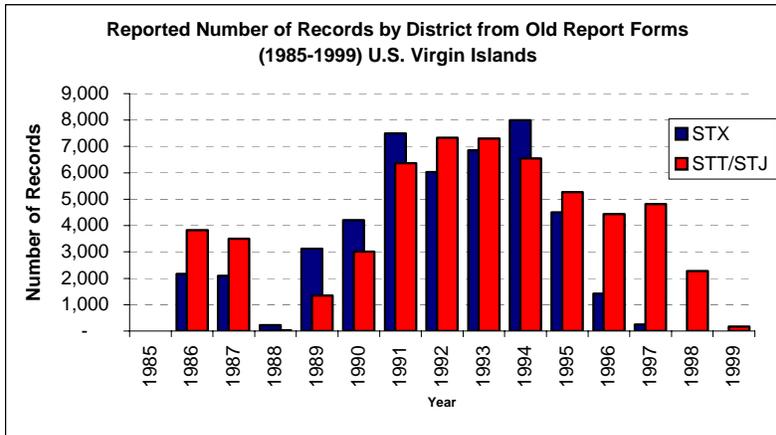


Figure 6. U.S. Virgin Islands. Old Form (1985-1999). Reported number of records, reported landings and expanded landings by year and district.

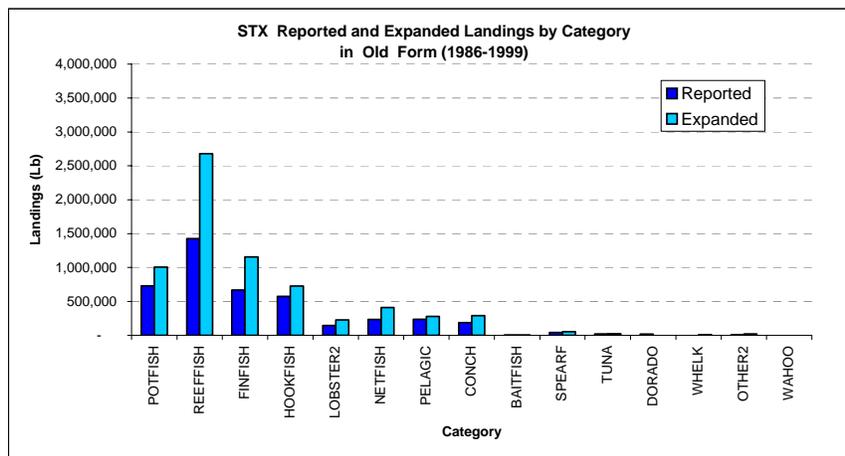
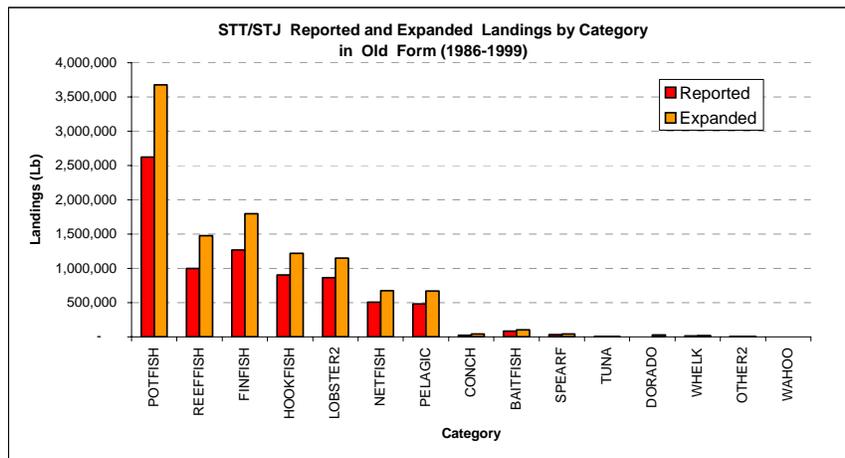
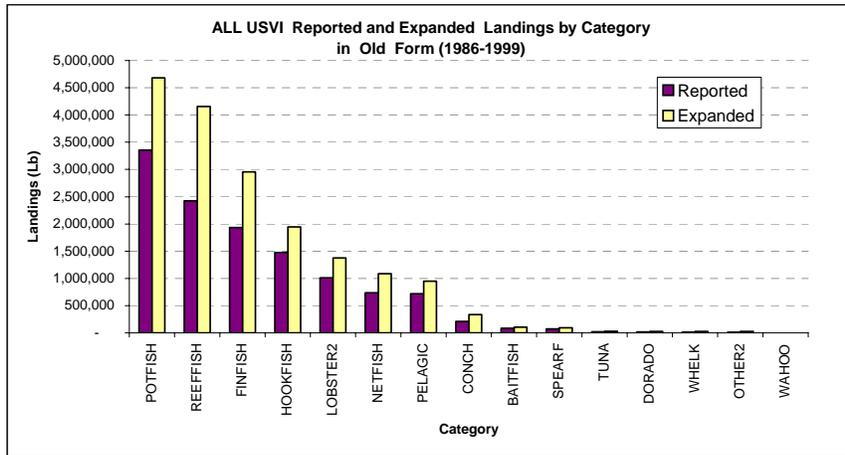


Figure 7. U.S. Virgin Islands, Old Form (1985-1999). Reported and Expanded Landings by district and category.

NEW Form (1994-2002)

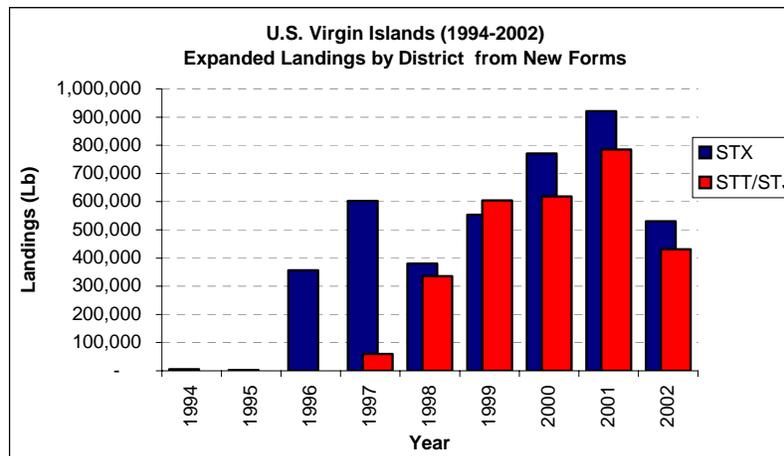
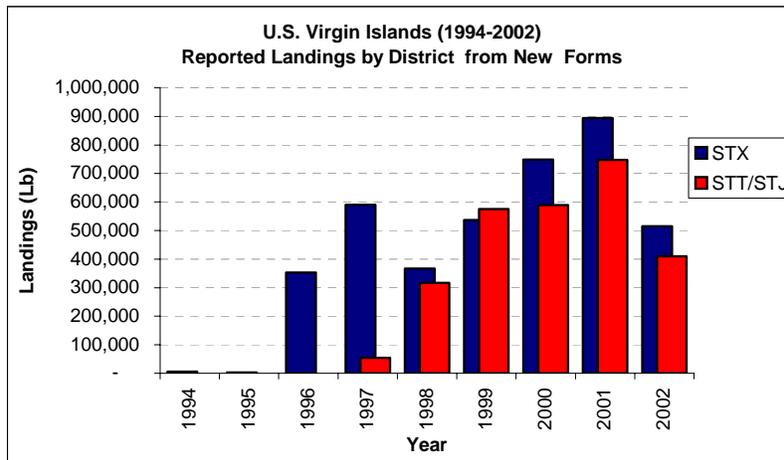
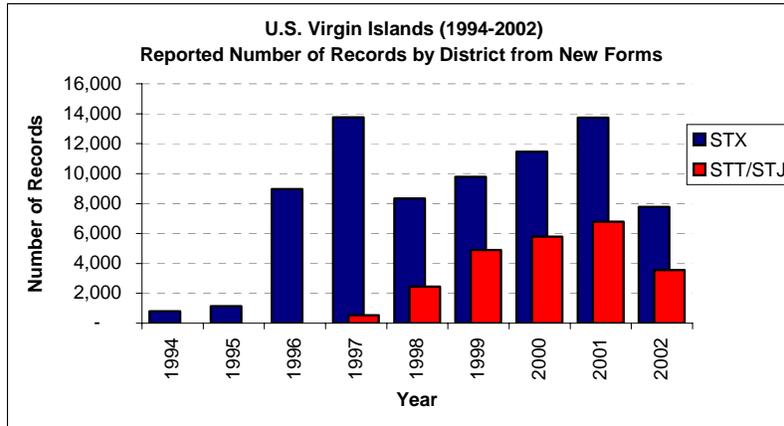


Figure 8. U.S. Virgin Islands. New Form (1994-2002). Reported number of records, reported landings and expanded landings by year and district.

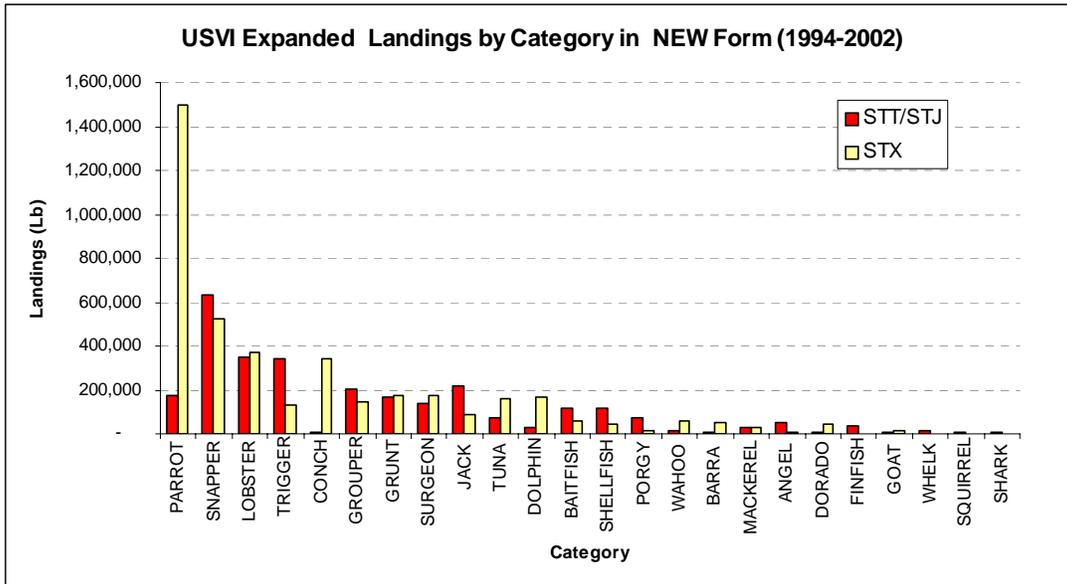
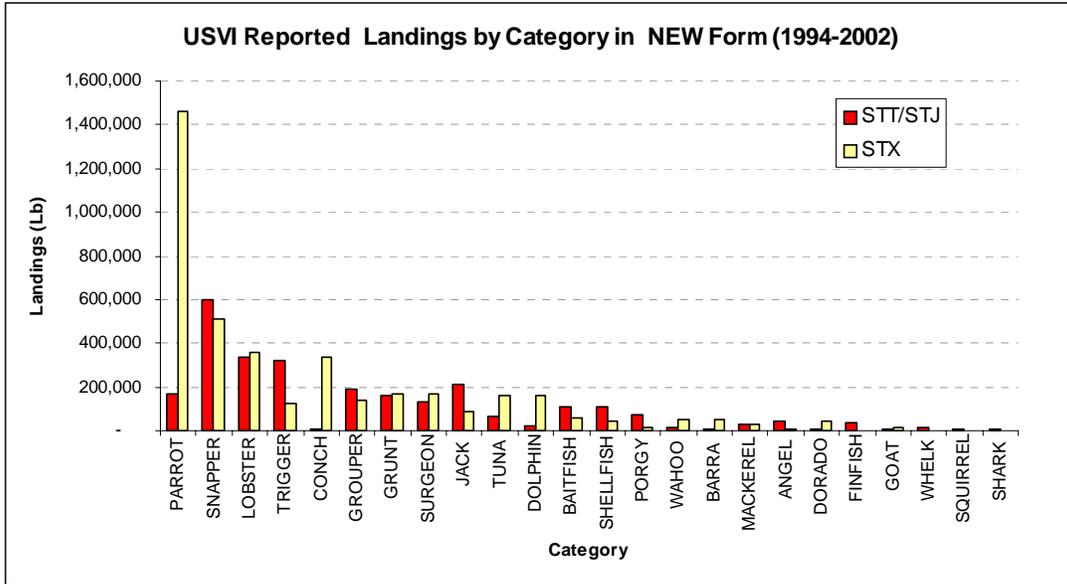


Figure 9. U.S. Virgin Islands, New Form (1994-2002). Reported and Expanded Landings by district and category.

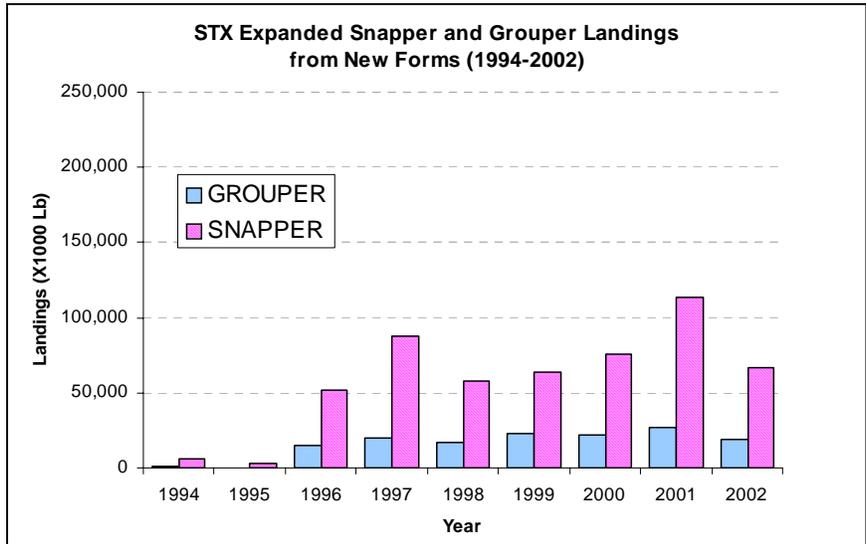
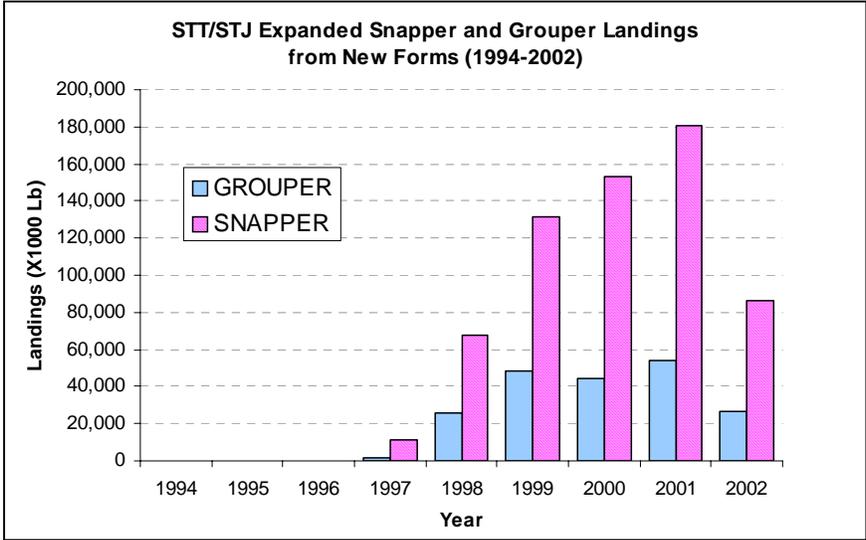


Figure 10. U.S. Virgin Islands, New Form (1994-2002). **Snapper and Grouper** expanded landings by year and district..

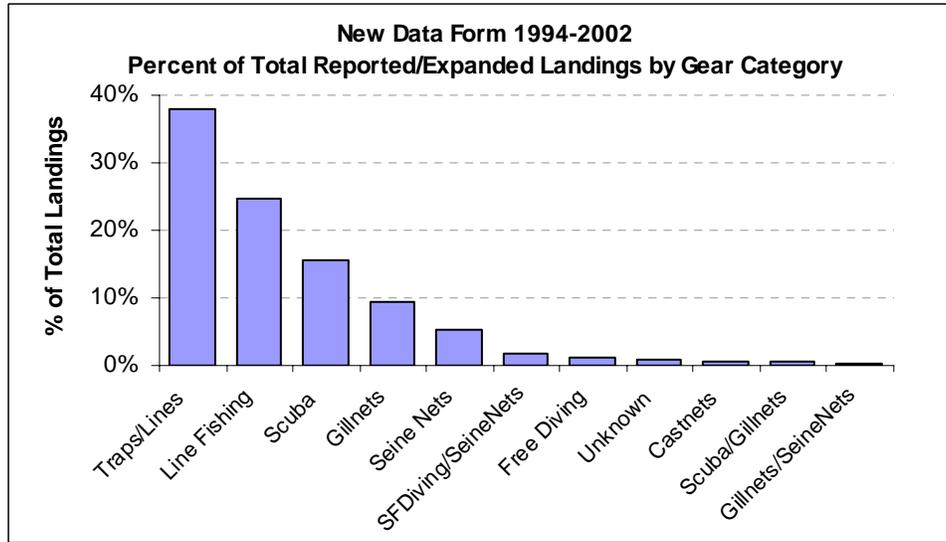


Figure 11. Percent of total reported/expanded landings by gear category from NEW Form (1994-2002) for the whole U.S. Virgin Islands.

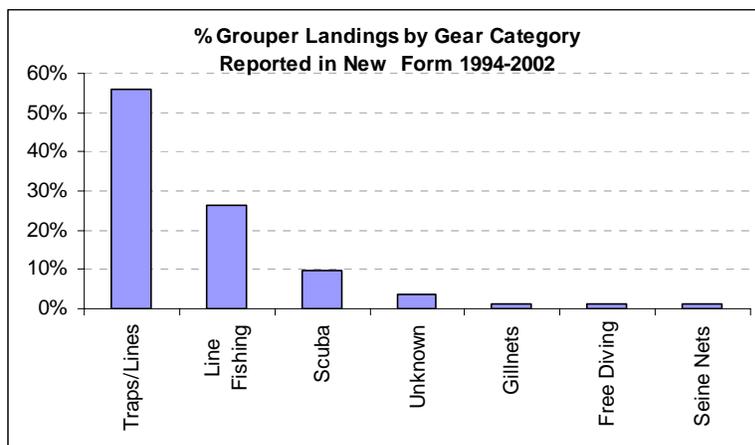
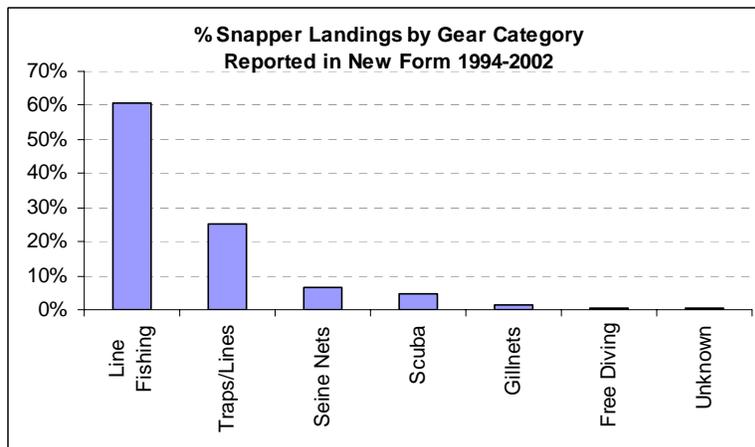


Figure 12. Percent of snapper and grouper (reported/expanded) landings by gear category from NEW Form (1994-2002) for the whole U.S. Virgin Islands.

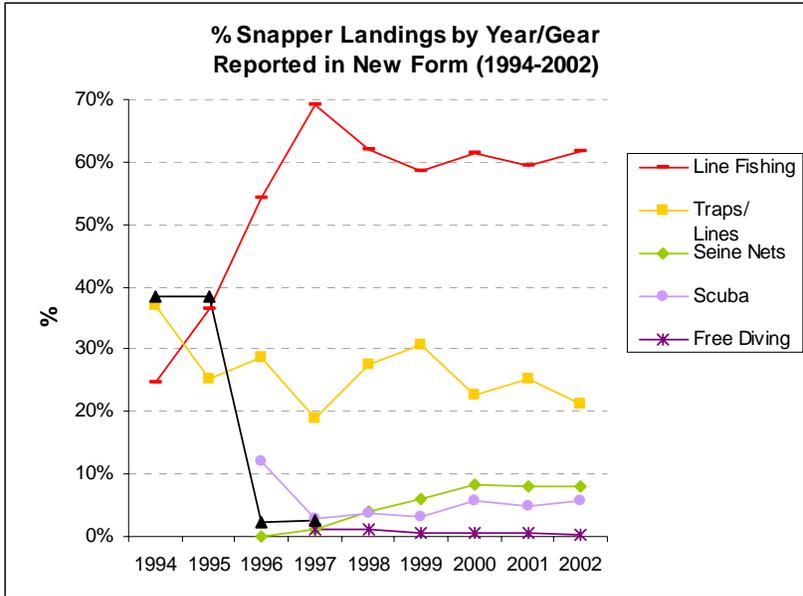


Figure 13. Proportion of snapper landings by gear type and year reported in New Form (1994-2002).

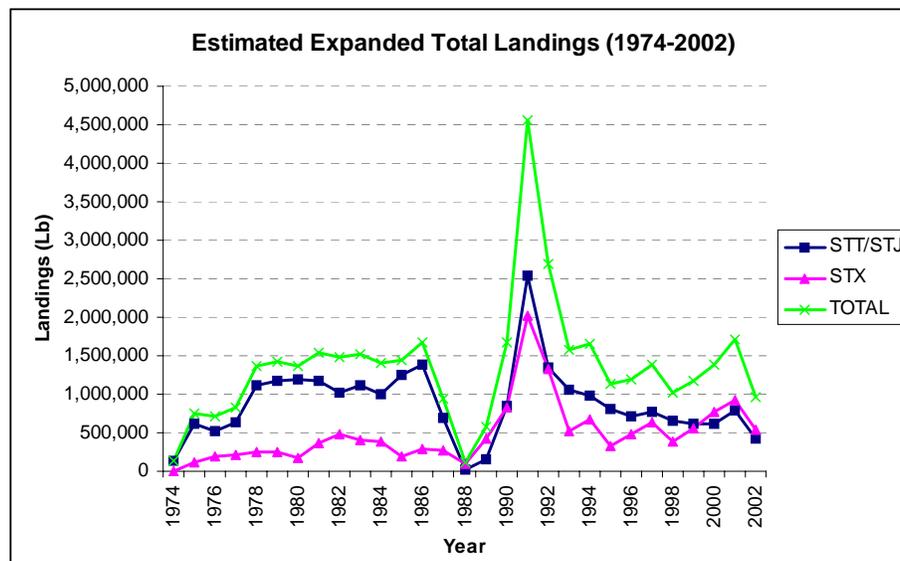
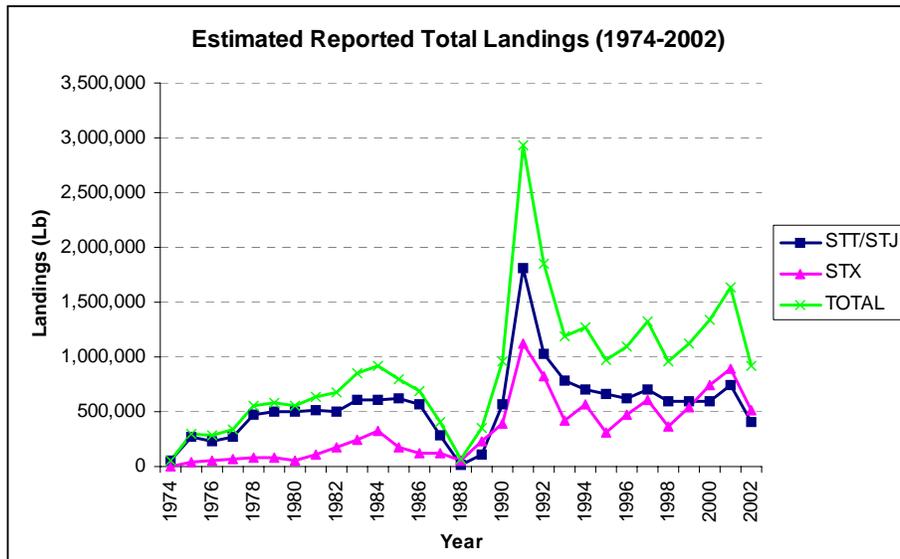


Figure 14. Estimated reported and expanded total landings for St. Thomas/St. John and St. Croix, years 1974-2002.

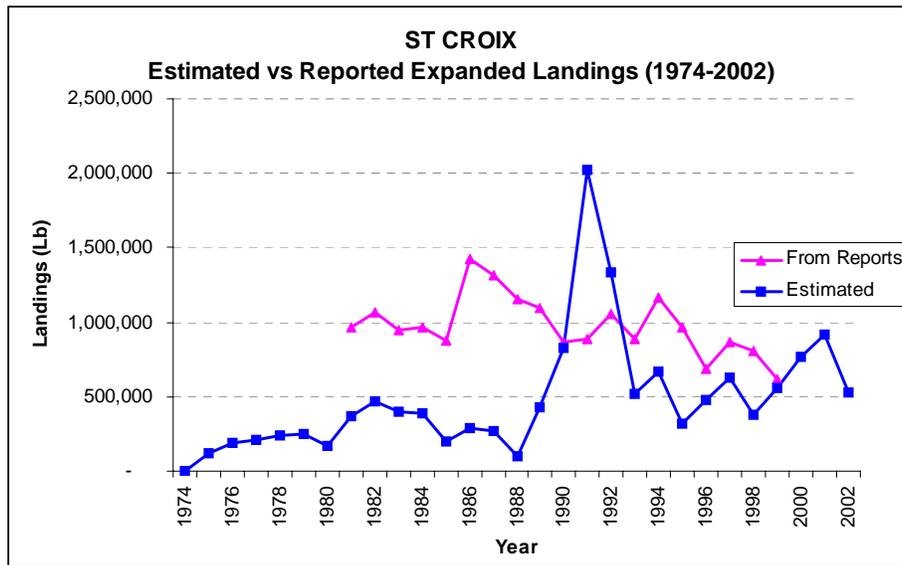
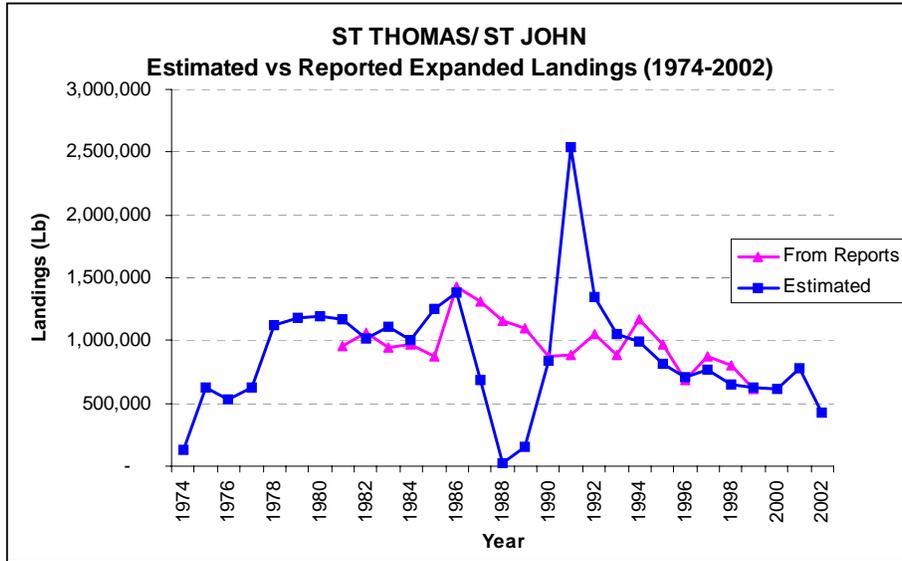


Figure 15. Comparison of total landings estimated and taken from annual reports (DFW,1980-2001).

APPENDIX A
U.S. VIRGIN ISLANDS

Table A.1. Summary of all location codes with corresponding area codes found in the USVI Landings database (1986-1999) (taken from Bolden 2001).

Area	Code	Location Codes found in USVI data files
British Virgin Islands	BBB	BBB
St. Thomas/St. John	STJ or T	JN, JS, JSE, JSW, T2, TAA, TNE, TN, THS, TNW, TSE, TSW, TTT, TW, TWN, TWT, TSW, 0
St. Croix	X	XN, XNE, XNW, XS, XSE, XSW, XXX, C1, C2, C3, C4, C5, 1
Unknown	ZZZ, ? or blank	

Table A.2. Summary of gear codes with corresponding gear type found in the USVI Landings database (1986-1999) (taken from Bolden 2001).

Code	Gear Type
D	Diving
H	Hook & Line
N	Net
P	Pot or trap
G	Gill net
N	Siene net
F	Free diving
S	Scuba
T	Trap
L	Line fishing
C, L	Both castnet and line fishing
F,L or L,F	Free diving and line fishing

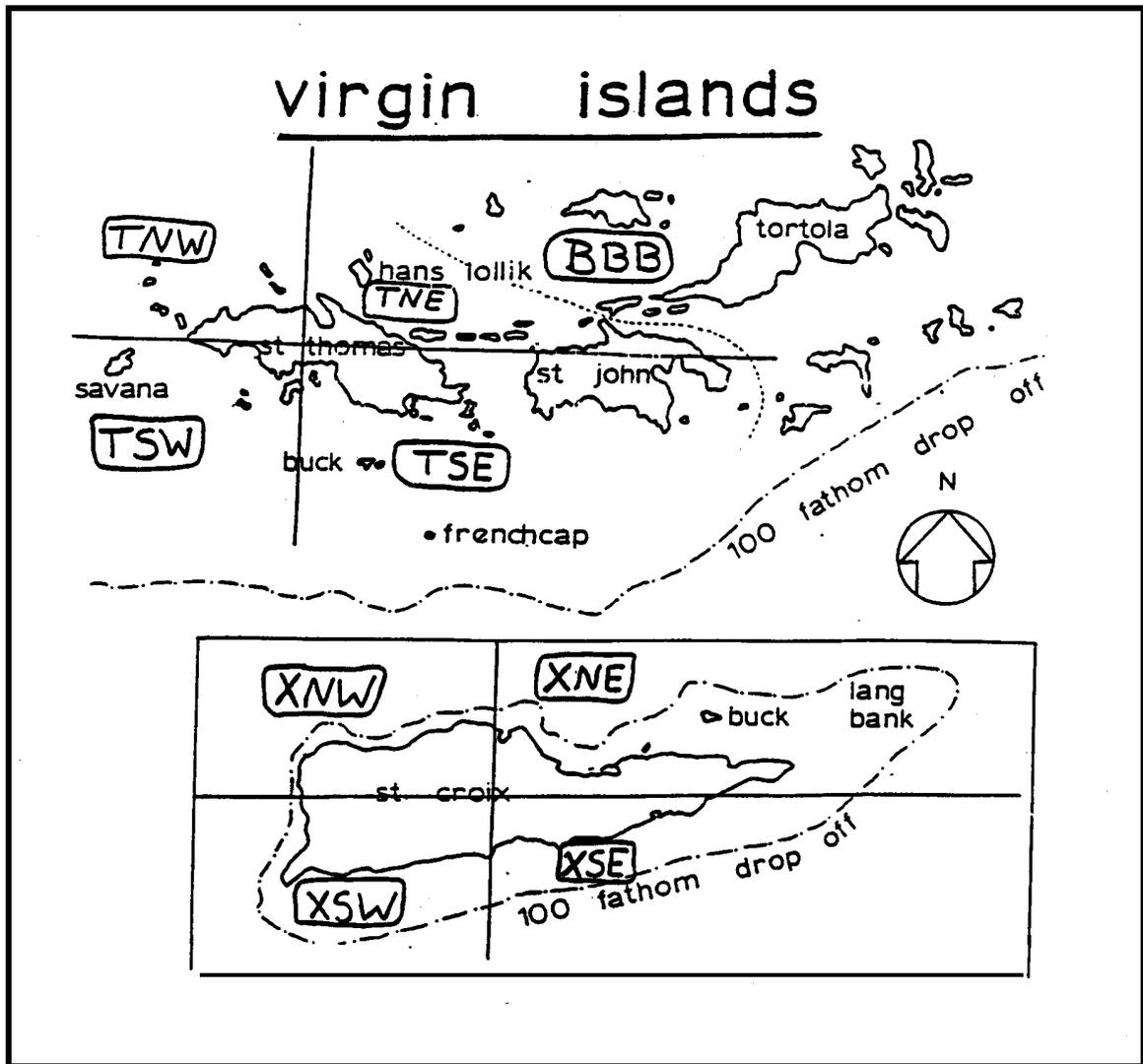


Figure A.1. Chart of the U. S. Virgin Islands fishing areas provided in the standard (OLD) catch report forms.

Catch Report Forms, revised

for Commercial Fisheries of the U.S. Virgin Islands

July 1999 - June 2000

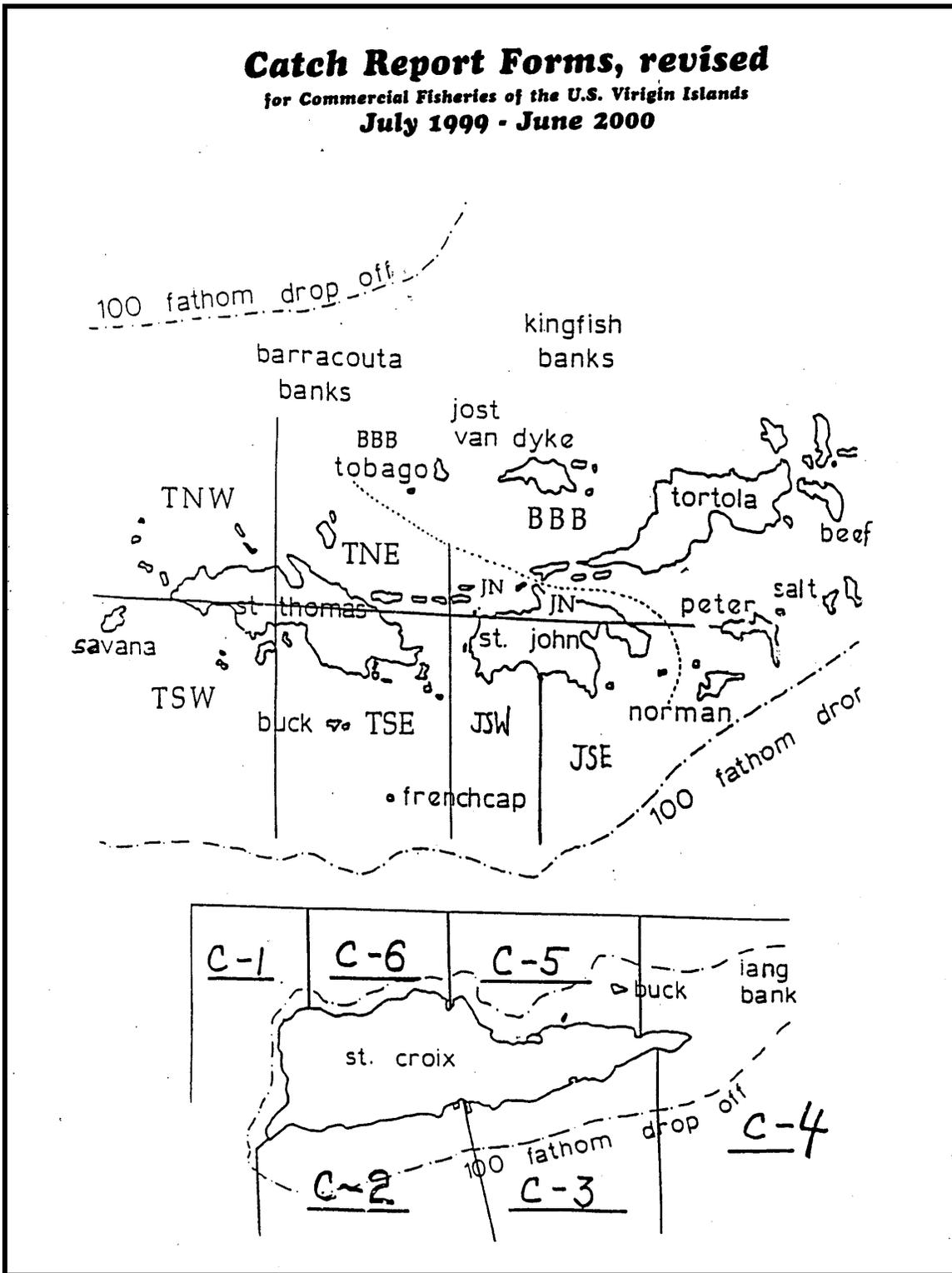


Figure A.2. Chart of the U. S. Virgin Islands fishing areas provided in the revised (NEW) catch report forms.

NAME: _____

ANNUAL SUMMARY OF
CATCH STATISTICS

LICENSE: _____

	POW FISH				NET FISH				HOOK FISH				SPEAR/GUN FISH				LOBSTER				OTHER KINDS				NO. POTS	NO. NETS	NO. HOURS SPENT FISHING	NO. DAYS FISHED	NO. BOATS	GLASS LOSSES	NO. OF INSPECTIONS	NO. HOURS	AREAS FISHED
	Snapper		All Other		Snapper		All Other		Snapper		All Other		Snapper		All Other		BY POT		BY HAND		CRAB, WHEEK, OCTOPUS, SQUID CLAM, OYSTERS												
	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$	LBS	\$									
JAN																																	
FEB																																	
MAR																																	
APR																																	
MAY																																	
JUNE																																	
JULY																																	
AUG																																	
SEPT																																	
OCT																																	
NOV																																	
DEC																																	
TOTAL																																	

Figure A.3. Early form (OLD 1974-1986). used to collect U.S. Virgin Islands commercial fishery statistics from 1974 to 1986 in St. Thomas, St. John and St. Croix.

FILL OUT THIS STUB
WHEN YOU SEND IN
YOUR CATCH REPORT.

Tear at the perforated line. Keep this
stub and send in the catch report.

The catch report for
JUNE 1996
was

mailed to Fish & Wildlife

date _____

dropped off at Fish & Wildlife

date _____

received by:

*You can bring this stub to Fish & Wildlife and
get a signature when you drop off the form.*

Mail to:

Division of Fish & Wildlife
6291 Estate Nazareth 101
St. Thomas, VI 00802-1104
775-6762

or

Division of Fish & Wildlife
Lagoon St. Complex, Room 203
Fredericksted, St. Croix VI 00840
772-1955

Division of Fish & Wildlife 95.06.12 CWB

ID number _____

name _____

home port _____

COMMERCIAL CATCH REPORT FORM FOR **JUNE 1996**

boat reg. no. _____

buoy colors _____

number of helpers used _____

Did you fish this month? Yes No

day of month	POT FISH		HOOK FISH	NET FISH	SPEARGUN	POT LOBSTER		LOBSTER	CONCH	BAITFISH/	AREAS FISHED ↓	Did you fish more than 3 miles from shore (Yes/No/Both)
	lbs	# Pots Hauled	lbs	lbs	FISH lbs	lbs	# Pots Hauled	by DIVING	lbs of meat	FRY lbs		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
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24												
25												
26												
27												
28												
29												
30												
31												

Division of Fish & Wildlife 95.06.12 CWB

I attest that the information recorded on this form is true and accurate.

(sign & date)

Figure A.4. U.S. Virgin Islands standard (OLD 1986-1999) commercial catch report form. This was the only form used in St. Thomas-St. John until fishing year FY 1995-1996 and in St. Croix until FY 1993-1994. It was still used by the majority of fishermen in St. Croix until FY 1995-1996, and up until 1999.

initials _____

REVISED COMMERCIAL CATCH REPORT FORM FOR **APRIL 1999**

name _____ boat reg. no. VI- _____ buoy colors _____ total traps in water: fish pots _____ lobster pots _____ no. helpers used _____

Day	Gear Type	Gear No.	Area Fished	Hours Fished	Grouper lbs	Snapper lbs	Grunt lbs	Jack lbs	Surgeon lbs	Parrot lbs	Shellfish lbs	Trigger lbs	Angel lbs	Barra lbs	Goat lbs	Mackr lbs	offshore D/T/W lbs	FAD	Baitfish lbs	Lobster lbs	Conch meat	Whelk-meat	Distance from land
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2																							
3																							
4																							
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Division of Fish & Wildlife 98.06 CWB

I attest that the information recorded on this form is true and accurate. _____ (sign & date)

Received at DFW

Figure A.5. U.S. Virgin Islands revised (NEW 1994-2002) commercial catch report form, introduced in St. Croix in FY 1994-1995 and in the entire U.S. Virgin Islands in FY 1996-1997.