

**ESTIMATES OF THE NUMBER OF
LICENSED COMMERCIAL FISHERS
PER YEAR IN THE U.S. VIRGIN ISLANDS,
1974/75 TO 2003/04**

Michael Holt,

And

K. Roger Uwate

Bureau of Fisheries
Division of Fish and Wildlife
Department of Planning and Natural Resources.
U.S. Virgin Islands

July 2004

BACKGROUND

The number of commercial fishers over time is an important component to assessing the commercial fishery. This is true globally, as well as for the U.S. Virgin Islands. Are the numbers of commercial fishers increasing, decreasing or remaining stable? This information can be compared with fishing effort and total landings information to provide a broader and more complete picture of the fishery.

The number of licensed commercial fishers in the U.S. Virgin Islands changes from year to year. The fishing year for commercial fishers in the U.S. V.I. is from July to June of the following year. In August 2001, the Commissioner of the Department of Planning and Natural Resources issued a moratorium on the issuance of new commercial fishing licenses. Those individuals that were licensed up to 3 years prior to that date were allowed to renew their commercial fishing license. Thus, more recently (since August 2001), the numbers of licensed commercial fishers have been rather stable.

Annual numbers of licensed commercial fishers are reported in a variety of references (such as internal memos and annual grant reports). However, identification of such documents can be extremely difficult. In the last few years, the lack of availability, organization, and accessibility to old commercial catch report data files, summary reports, and supporting documents (such as catch report formats, and commercial fisher information booklets) has become a grave problem. Considerable time and resources are now being directed toward resolving these problems. As part of the clean up of old commercial catch report data over the last few years, old files, fisher lists, and reports were identified and organized. These materials contained information on the number of licensed commercial fishers each year.

The objective of this report is to document estimates of the number of commercial fishing licenses issued per year for the U.S. Virgin Islands. As indicated above, this information can provide a perspective in developing a broader and more complete picture of the local fishery.

METHODOLOGY

Sources of Information – There are a multitude of information sources for the number of licensed commercial fishers in any particular year.

1. Commercial Fisher Lists – As part of the identification and organization of old files, hard copies of licensed commercial fisher lists were identified. These were organized and compiled by district and by fishing year. In addition, electronic versions of licensed commercial fisher lists were identified, printed out and compiled.
2. Commercial Fisheries Landings Summaries – As part of the clean up of old files, old reports documenting and summarizing commercial fisheries landings were identified. These were organized and compiled by year.

3. Commercial Catch Report Data Files – Finally as part of the identification and organization of old files, all available commercial catch reports for the U.S. Virgin Islands from 1974/75 to 2002/03 are in the process of either being: (1) entered and proofed, (2) re-proofed, or (3) re-entered and re-proofed. Often associated with these data files (within the same file, but different sheets) are electronic lists of licensed commercial fishers. These were also identified, printed out, and compiled. These lists were added to those collected in #1 above.
4. Commercial Fisher Registration Slips – For more recent years, a pink copy of commercial fisher registration forms were available at least for St. Croix licensed commercial fishers (at DFW/STX). For St. Croix commercial fisher numbers from 2000/01 to 2003/04, fisher registration forms were counted.

Comparison of Commercial Fisher Number Estimates

1. Each of the above sources of data was examined and reviewed. All of the information collected above was compiled (see Appendix 1).
2. For each fishing year and district, minimum and maximum reported numbers of licensed commercial fishers, as well as average and mode number of licensed commercial fishers were calculated. These were based on estimates from all available data sources (see Appendix 1). A summary of these values is presented in Appendix 2.
3. For each fishing year, the total number of USVI licensed commercial fishers was calculated based on the average number of licensed commercial fishers per year and district. In addition, the total number of USVI licensed commercial fishers was also calculated based on the mode number of licensed commercial fishers per year and district. These estimates are provided in Appendix 2.
4. Information in Appendix 1 was reviewed to select the most appropriate total number of licensed commercial fishers per year and district (see Appendix 2, selected columns). For most years, the mode was selected. For St. Thomas/St. John for the 1998/99 to 2003/04 periods, DFW/STT data file numbers were used. These are thought to be accurate and up-to-date. For St. Croix for the 2000/01 to 2003/04 periods, DFW/STX numbers (based on counting pink copies of registration forms) were used. These recent St. Croix numbers are thought to be accurate and up-to-date. Finally, there were some years when no mode could be calculated. This was because there was only 1 estimate for that year and district (more than 1 is needed to calculate a mode). In those years, the single estimate for number of licensed commercial fishers was selected.
5. For each fishing year, the total number of USVI licensed commercial fishers was calculated based on the selected number of licensed commercial fishers per year and district. These estimates are presented in Appendix 2.

RESULTS

For some years, there were several estimates of the number of licensed commercial fishers for each district (see Appendix 1). A scatter plot is provided (see Figure 1) for St. Thomas/St. John number of licensed commercial fishers per year that illustrates the range of estimates. A similar scatter plot is provided in Figure 2 for St. Croix number of licensed commercial fishers per year.

Minimum and maximum estimates of the number of licensed commercial fishers per year were compared based on the summary in Appendix 2 (for St. Thomas/St. John see Figure 3, for St. Croix see Figure 4). Again, the range of estimated numbers of licensed commercial fishers can be observed in these figures.

The average number of licensed commercial fishers per year (see Appendix 2) was then plotted with estimates from other years (see Figure 5). The mode number of licensed commercial fishers per year (see Appendix 2) was also plotted with estimates from other years (see Figure 6).

All information on the number of licensed commercial fishers was reviewed and the best number was selected (based on stated criteria, see #4 of Comparison of Commercial Fisher Number Estimates section above). The selected number of licenses for St. Thomas/St. John and St. Croix are presented in Appendix 2 (see also Figure 7).

The total number of USVI licensed commercial fishers per year was calculated (see Appendix 2) based first on the average number of licensed commercial fishers per year (see Figure 8), then on the mode number of licensed commercial fishers per year (see Figure 9). The total number of USVI licensed commercial fishers per year was also calculated based on the selected number of licensed commercial fishers per year (see Figure 10).

A separate figure was made from 1985/86 to 2003/04 based on the selected numbers of licensed commercial fishers for both St. Thomas/St. John and St. Croix (see Figure 11). Trend lines (based on a linear regression) were added to this figure. Finally, after examining all available information, it appeared that in the last several years the number of licensed commercial fishers for St. Thomas/St. John has declined.

DISCUSSION

Based on the above information, it appears that there are several estimates available regarding the number of licensed commercial fishers in the USVI over the last 30 years (see Appendix 1). In addition, there are several ways to estimate the numbers of licensed commercial fishers in the USVI (such as minimum reported, maximum reported, average of number reported, mode of number reported for each fishing year and each district). These were all examined and presented (in Appendix 2 and in Figures 1 to 6, 8, and 9).

Based on the above, criteria was developed (see #4 of Comparison of Commercial Fisher number Estimates section above) and applied to available estimates. The number of licensed commercial fishers for each district and each fishing year were then selected (see Appendix 2), and then

presented (see Figures 7 and 10). At this time, these are probably the best available estimates on the number of licensed commercial fishers in each district of the U.S. Virgin Islands over the last 30 years.

There are a variety of agencies that deal with fisheries management in the USVI. These include NOAA-Fisheries, the Caribbean Fisheries Management Council, and the USVI Division of Fish and Wildlife. With recent proposed closures of fishing areas, there is considerable discussion about reducing fishing effort. Trend in the numbers of licensed commercial fishers over time is an essential bit of information for these considerations. A special graph was constructed (see Figure 11) to focus on this issue. Based on this graph, it appears that the numbers of licensed commercial fishers on St. Thomas/St. John have declined over the last almost 20 years (almost 50 percent). However, the number of licensed commercial fishers on St. Croix has remained relatively stable over this same period of time.

REFERENCES CITED

- Anon. 1979. Fisheries statistics of the Virgin Islands. Annual Progress Report, Segment 1, Project No. 2-335-R. 1978-1979. Department of Conservation and Cultural Affairs, Government of the Virgin Islands of the United States.
- Anon. ca 1991. State/ Federal Commercial Fishery Statistics Project Annual Summary Report U. S. Virgin Islands 1989-1990.
- Barshinger, C.W ca 1992. State/Federal Commercial Fishery Statistics Project #SF-42 (NA90AAHSF228) Annual Summary Report, U.S. Virgin Islands 1990-1991. Department of Planning and Natural Resources, Division of Fish & Wildlife, St. Thomas, U.S. Virgin Islands.
- Barshinger, C.W ca 1993. State/Federal Commercial Fishery Statistics Project #SF-42 (NA90AAHSF228) Annual Summary Report, U.S. Virgin Islands 1991-1992. Department of Planning and Natural Resources, Division of Fish & Wildlife, St. Thomas, U.S. Virgin Islands.
- Barshinger, C. 1997. US Virgin Islands/National Fisheries Service Interjurisdictional Fisheries Program Final Report. 1 October 1994 – 30 September 1997. Division of Fish and Wildlife, Department of Planning and Natural Resources, St. Thomas, Virgin Islands.
- Clavijo, I., M. Brandon, and W. Tobias. 1984. State/Federal Cooperative Statistics Program Virgin Islands, Annual Report - Segment 2 – Project No. SF-22, 1982-1984. Division of Fish and Wildlife, Department of Conservation and Cultural Affairs.
- Clavijo, I., M. Brandon, and W. Tobias. 1985. State/Federal Cooperative Statistics Program United States Virgin Islands Annual Report. Segment 2 – Project No. SF-22, April 1, 1984 to March 31, 1985. Division of Fish and Wildlife, Department of Conservation & Cultural Affairs.

Division of Fish and Wildlife. 1993. U. S. Virgin Islands Division of Fish and Wildlife/
National Marine Fisheries Service Cooperative Fishery Statistics Program. #SF-42
(NA90AAHSF228). Annual Summary Report 1992-1993. Department of Planning and Natural
Resources, St. Thomas, U.S. Virgin Islands 00802.

Meyers, S. 1994. Annual Summary Report April 1993- March 1994 Cooperative Fishery
Statistics Program #SF-42 (NA27FT0301-01). Bureau of Fisheries, Division of Fish and
Wildlife, Department of Planning and Natural Resources, United States Virgin Islands.

Olsen, D.A., A.E. Dammann, and J.A. Laplace. 1975. Analysis of Catch Data for the Virgin
Islands Commercial Fisheries. Annual Progress Report, Segment 1. Project 2-239, R-1.
Supported by National Marine Fisheries Service, PL 88-309.

Sylvester, J.R. ca 1977. Analysis of catch data for the Virgin Islands commercial fisheries.
Completion report for Commercial Fisheries Research and Development Act (PL 88-309).

Tobias, W. 1997. Three year summary report, April 1994 - March 1997, Cooperative Fishery
Statistics Program #SF-42 (NA27FT0301-01). Division of Fish and Wildlife, Department of
Planning and Natural Resources, United States Virgin Islands.

Tobias, W., R. Gomez, and B. Kojis. 2000. Three year summary report, April 1997 - March
1999, Cooperative Fishery Statistics Program NA77FT0093. Bureau of Fisheries, Division of
Fish and Wildlife, Department of Planning and Natural Resources, United States Virgin Islands.

Wood, R. ca 1983. Reanalysis of Fisheries of the U. S. Virgin Islands 1974-1982. Division of
Fish and Wildlife, Department of Conservation and Cultural Affairs. Government of the U.S.
Virgin Islands.

Wood, R.S 1983. Fishery statistics of the Virgin Islands, Annual Progress Report – Segment 4,
Project No. 2-335-R. 1981-1982. Department of Conservation and Cultural Affairs,
Government of the Virgin Islands of the United States.

ACKNOWLEDGMENTS

An earlier draft of this report was reviewed by Jason Vasques and Dr. Barbara Kojis.

Figure 1. St. Thomas/St. John Number of Licensed Commercial Fishers For 1997/74 to 2003/2004 Fishing Years (based on all available references, therefore there may be more than 1 estimate per fishing year, see Appendix 1)

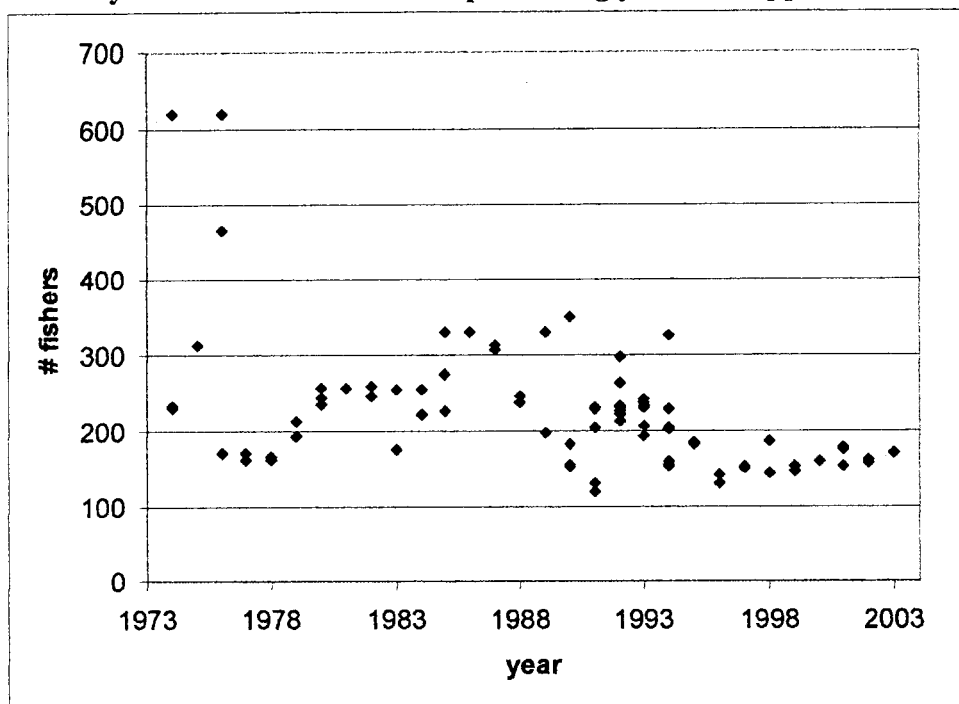


Figure 2. St. Croix Number of Licensed Commercial Fishers For 1997/74 to 2003/2004 Fishing Years (based on all available references, therefore there may be more than 1 estimate per fishing year, see Appendix 1).

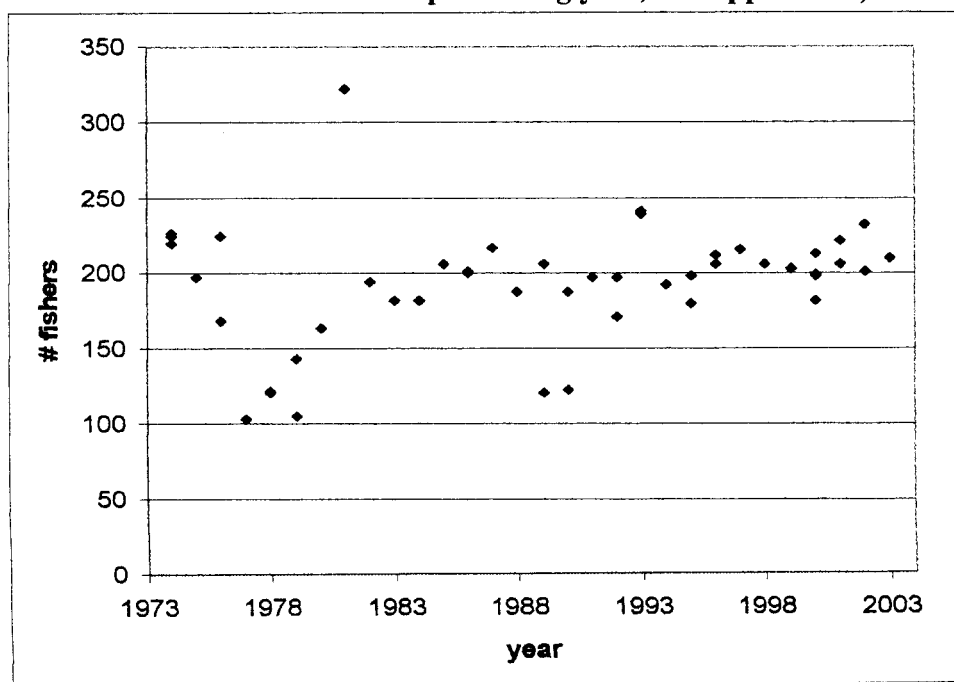


Figure 3. St. Thomas/St. John Minimum and Maximum Reported Number of Licensed Commercial Fishers For 1973/74 to 2003/04 Fishing Years (based on all available references, see Appendix 1)

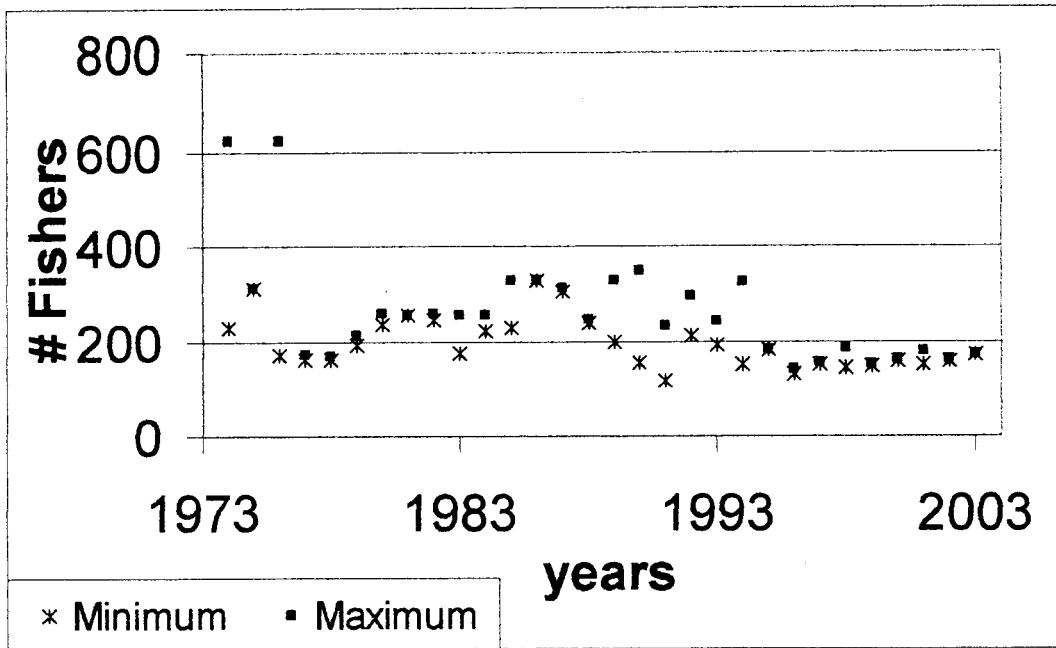


Figure 4. St. Croix Minimum and Maximum Reported Number of Licensed Commercial Fishers for 1973/74 to 2003/04 Fishing Years (based on all available references, see Appendix 1)

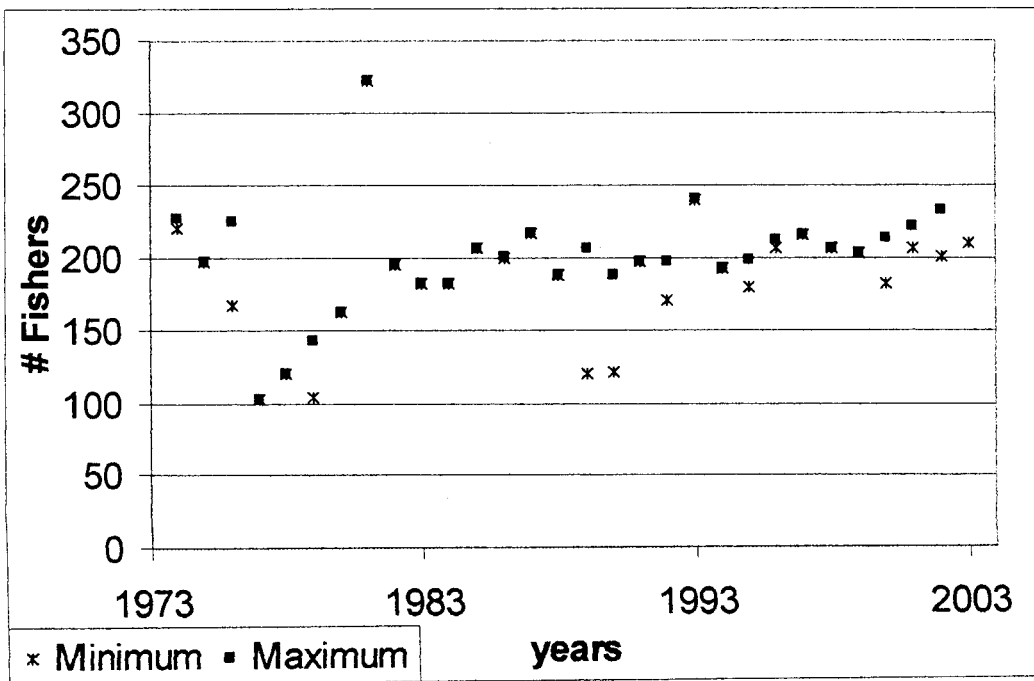


Figure 5. St. Thomas/St. John and St. Croix Average Reported Number of Licensed Commercial Fishers For 1973/74 to 2003/04 Fishing Years (based on all available references, see Appendix 2)

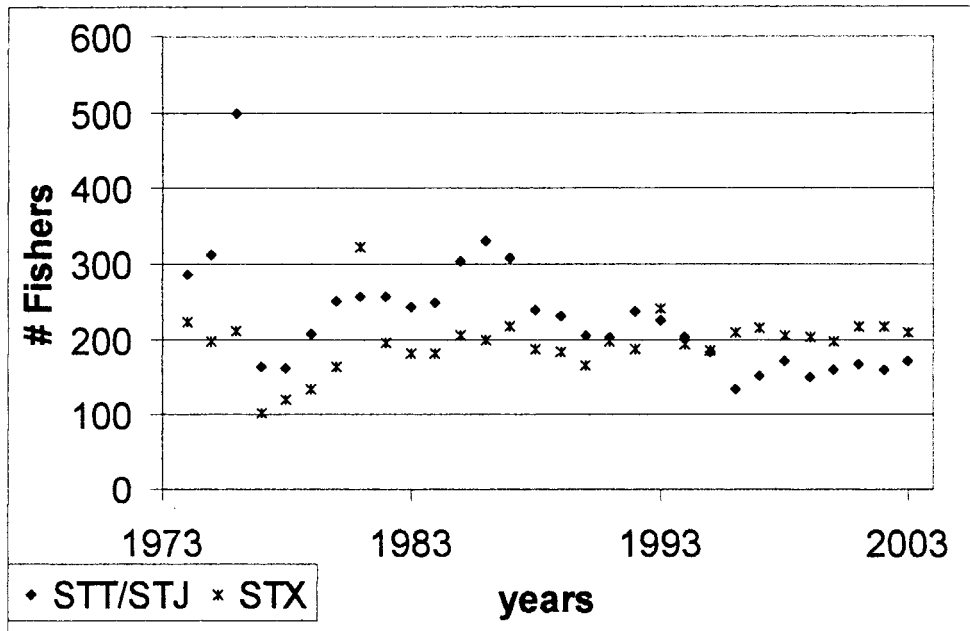


Figure 6. St. Thomas/St. John and St. Croix Mode Reported Number of Licensed Commercial Fishers For 1973/74 to 2003/04 Fishing Years (based on all available references, see Appendix 2)

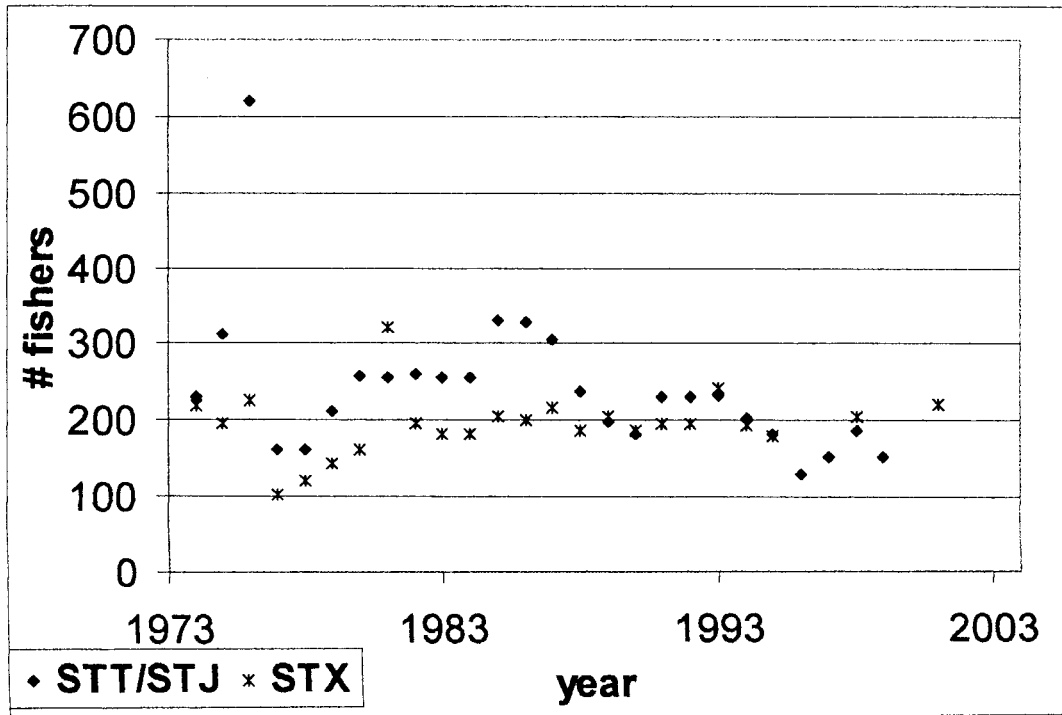


Figure 7. St. Thomas/St. John and St. Croix Number of Licensed Commercial Fishers per Year For 1973/74 to 2003/04 Fishing Years (based on selected number of licensed commercial fishers reported per year, see Appendix 2).

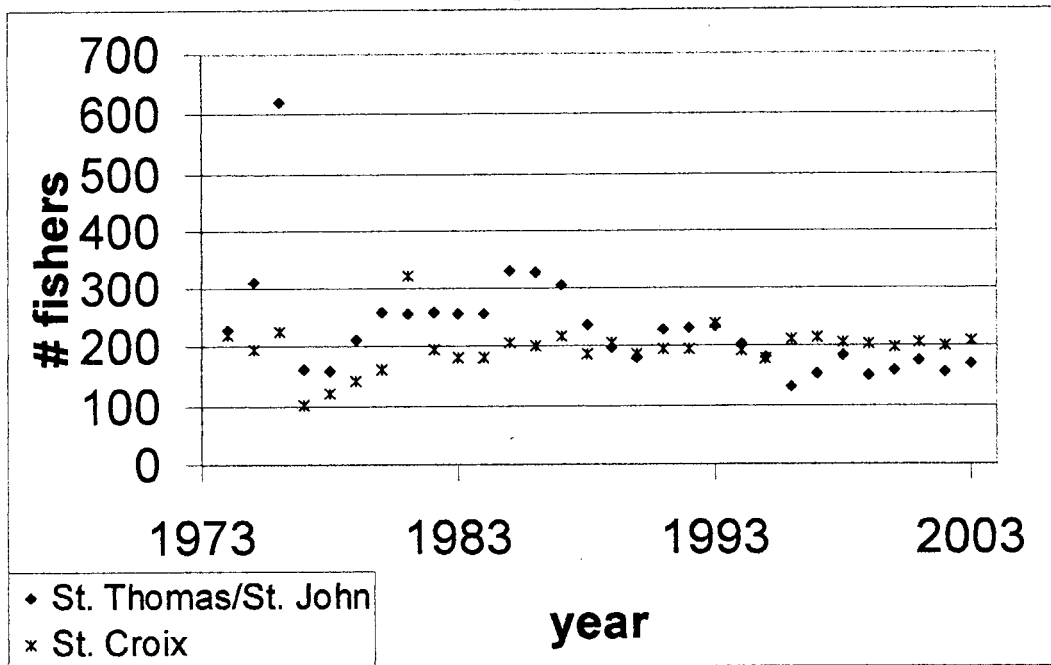


Figure 8. USVI Total Average Number of Licensed Commercial Fishers Per Year For 1973/74 to 2003/04 Fishing Years (based on sum of St. Thomas/St. John and St. Croix average number of licensed commercial fishers per year, see Appendix 2).

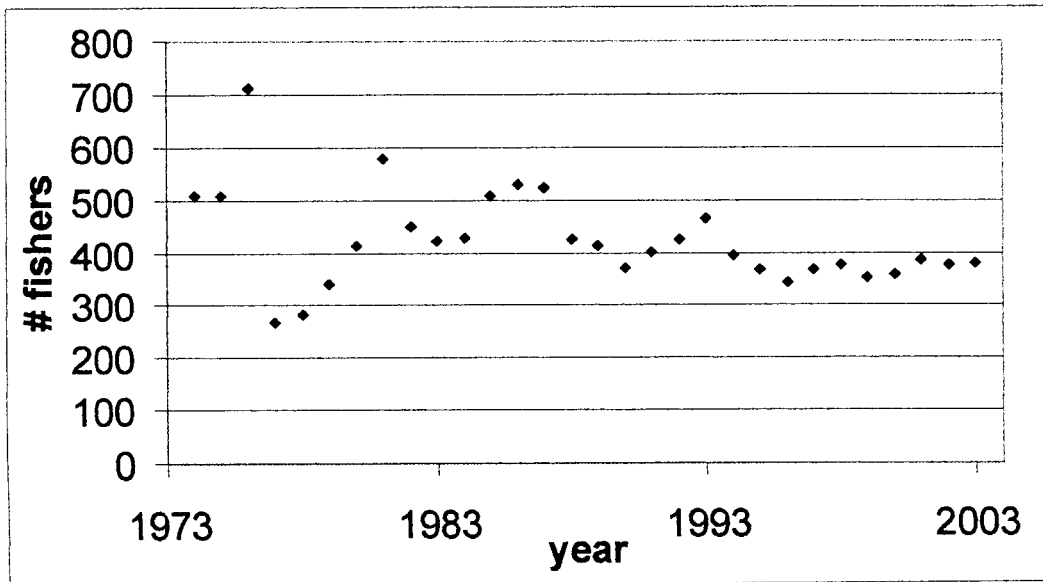


Figure 9. USVI Total Mode Number of Licensed Commercial Fishers Per Year for 1973/74 to 2003/04 Fishing Years (based on sum of St. Thomas/St. John and St. Croix mode number of licensed commercial fishers per year, see Appendix 2)

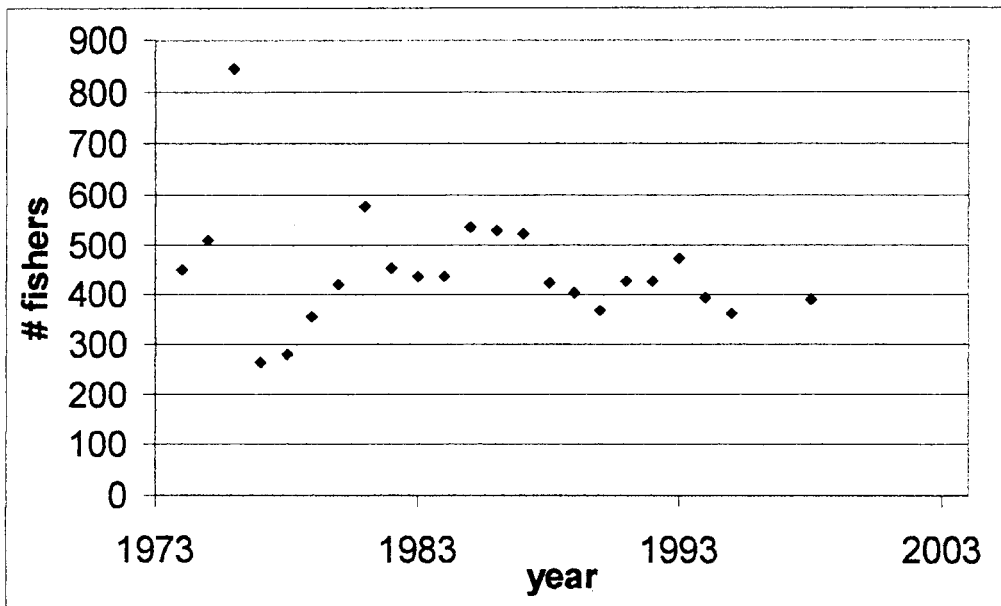


Figure 10. USVI Total Number of Licensed Commercial Fishers Per Year For 1973/74 to 2002/03 Fishing Years (based on sum of St. Thomas/St. John and St. Croix selected number of licensed commercial fishers per year, see Appendix 2)

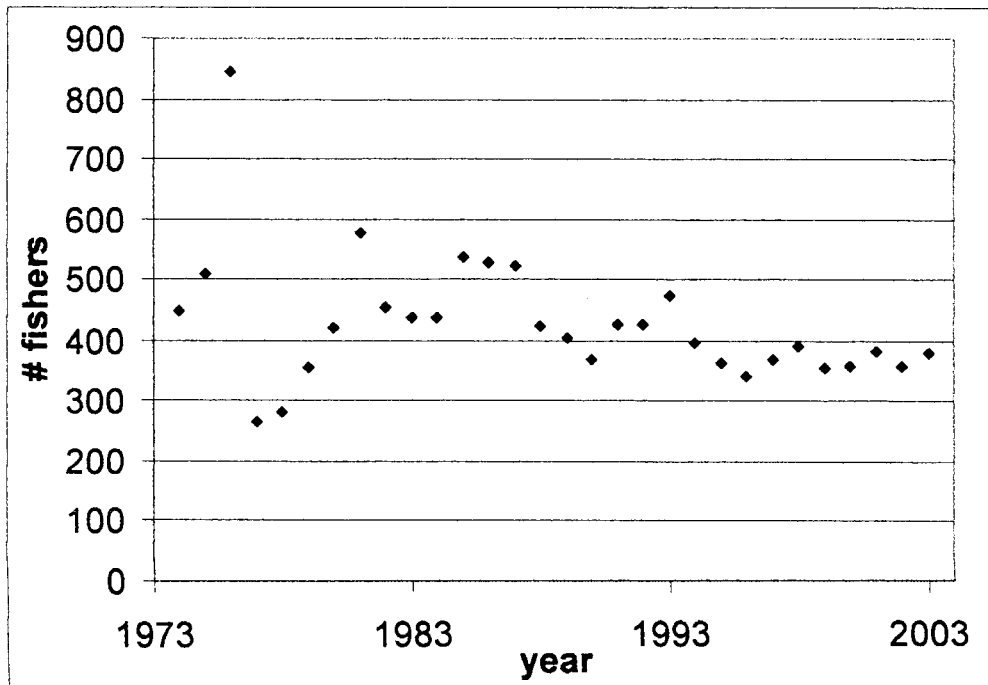
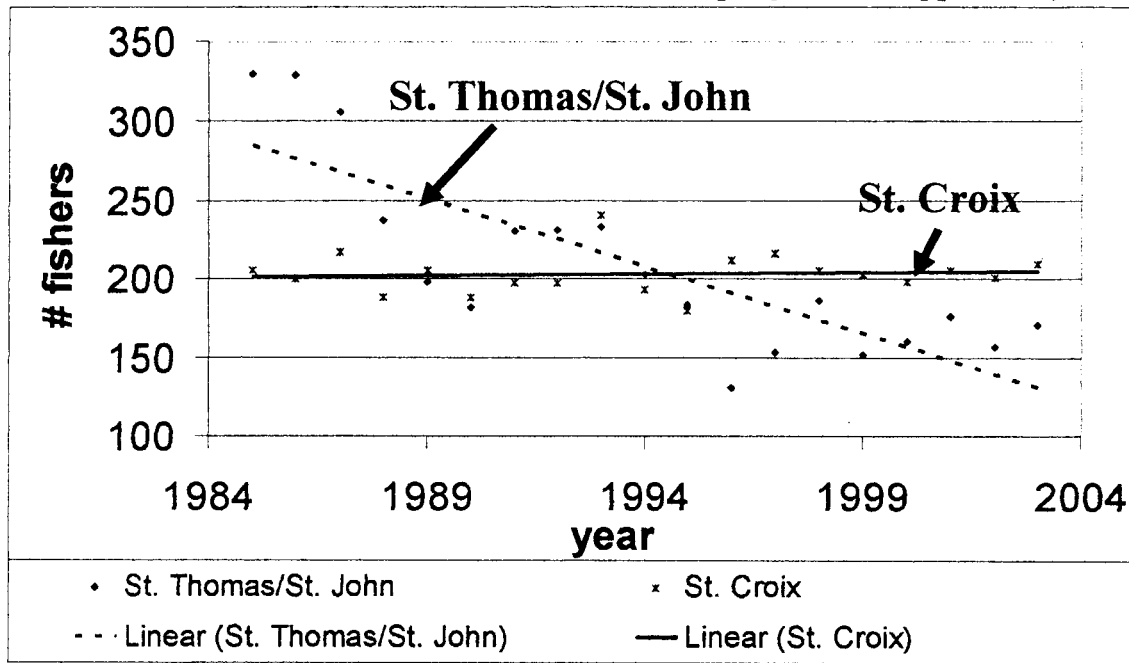


Figure 11. St. Thomas/St. John and St. Croix Number of Licensed Commercial Fishers Per Year For 1975/74 to 2002/03 Fishing Years with Linear Trend Lines* (based on selected number of licensed commercial fishers per year, see Appendix 2)



*note:

For St. Thomas/St. John, the linear regression is $Y = 8.5509X + 17258$, with $r^2 = 0.6625$.
 For St. Croix, the linear regression is $Y = 0.193X - 181.39$, with $r^2 = 0.0067$.

APPENDIX 1.
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
74/75	230	220	Wood ca 1983, table 1
74/75	230	227	Barshinger ca 1992, table 1
74/75	232	227	Olsen et al 1975, table 1
74/75	230	227	Olsen et al 1975, table 5
74/75	230	220	Anon. 1979, table 7
74/75	230	220	Wood 1983, table 5
74/75	621	225	Sylvester ca 1977, abstract
75/76	312	197	Wood ca 1983, table 1
75/76	312	197	Wood 1983, table 5
75/76	312	197	Anon. 1979, table 7
75/76	312	197	Barshinger ca 1992, table 1
76/77	466	168	Wood ca 1983, table 1
76/77	621	225	Wood 1983, table 5
76/77	621	225	Anon. 1979, table 7
76/77	621	225	Barshinger ca 1992, table 1
76/77	170		List of Commercial Fishing Licenses Issued (St. Thomas/St. John, Jan 1977) @ DFW
77/78	162	103	Wood ca 1983, table 1
77/78	162	103	Wood 1983, table 5
77/78	162	103	Anon. 1979, table 7
77/78	162	103	Barshinger ca 1992, table 1
77/78	171		Fishermen Registered in the U.S. Virgin Islands (St. Thomas/St. John 1978) @ DFW
78/79	161	120	Wood ca 1983, table 1
78/79		120	St. Croix Registered Commercial Fishermen for the Year 1978/79 (St. Croix) @ DFW
78/79	161	120	Wood 1983, table 5
78/79	161	120	Anon. 1979, table 7
78/79	161	121	Barshinger ca 1992, table 1
78/79	167		List of Commercial Licensed Fishermen July 1978-June 1979 (St. Thomas/St. John) @ DFW
79/80	212	143	Wood ca 1983, table 1
79/80	212	143	Wood 1983, table 5
79/80	212	143	Barshinger ca 1992, table 1
79/80		105	License Fishermen issued 79-80 (St. Croix) @ DFW

APPENDIX 1 (continued)
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
79/80	192		Commercial Fishermen 1979/80 (St. Thomas/St. John) @ DFW
80/81	234	163	Wood ca 1983, table 1
80/81	258	163	Wood 1983, table 5
80/81		163	Clavijo et al 1984, page 5
80/81	258	163	Clavijo et al 1985, table 2
80/81	258	163	Anon. ca 1991, table 2
80/81	243	163	Barshinger ca 1992, table 1
80/81	243	163	Barshinger ca 1993, table 1b
80/81	258	163	Meyers 1994, table 6
81/82	256	322	Wood ca 1983, table 1
81/82	256	322	Wood 1983, table 5
81/82	256	322	Clavijo et al 1985, table 2
81/82		322	Clavijo et al 1984, page 5
81/82	256	322	Barshinger ca 1993, table 1b
81/82	256	322	Barshinger ca 1992, table 1
81/82	256	322	Meyers 1994, table 6
81/82	256	322	Anon. ca 1991, table 2
82/83	259	195	Clavijo et al 1984, page 5
82/83	259	195	Barshinger ca 1993, table 1b
82/83	259	195	Anon. ca 1991, table 2
82/83	259	195	Clavijo et al 1985, table 2
82/83	259	195	Barshinger ca 1992, table 1
82/83	259	195	Meyers 1994, table 6
82/83	245		Name List 12-30-82 (St. Thomas/St. John Commercial Fishers) @ DFW
83/84	255	182	Clavijo et al 1985, table 2
83/84	255	182	Anon. ca 1991, table 2
83/84	255	182	Barshinger ca 1992, table 1
83/84	255	182	Barshinger ca 1993, table 1b
83/84	255	182	Meyers 1994, table 6
83/84	176		1983-1984 Commercial Fishing Licenses (St. Thomas/St. John) @ DFW
84/85	255	182	Anon. ca 1991, table 2
84/85	255	182	Barshinger ca 1992, table 1
84/85	255	182	Barshinger ca 1993, table 1b
84/85	255	182	Meyers 1994, table 6

APPENDIX 1 (continued)
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
84/85	222		Name List 2-21-85 (St. Thomas/St. John) @ DFW
85/86	330	206	Anon. ca 1991, table 2
85/86	330	206	Barshinger ca 1993, table 1b
85/86	330	206	Barshinger ca 1992, table 1
85/86	330	206	Meyers 1994, table 6
85/86	227		Exempt Fishermen 10-10-86 (St. Thomas/St. John) @ DFW
85/86	275		Name List License File 1985/86 (St. Thomas/St. John) @ DFW
86/87	329	200	Anon. ca 1991, table 2
86/87	329	200	Barshinger ca 1992, table 1
86/87	329	200	Barshinger ca 1993, table 1b
86/87	329	200	Meyers 1994, table 6
86/87		201	1987 commercial fisher license list @ DFW
87/88	306	217	Anon. ca 1991, table 2
87/88	306	217	Barshinger ca 1992, table 1
87/88	306	217	Barshinger ca 1993, table 1b
87/88	306	217	Meyers 1994, table 6
87/88	312		No title (1987/88 St. Thomas/St. John commercial fishers) @ DFW
88/89	237	188	Anon. ca 1991, table 2
88/89	237	188	Barshinger ca 1992, table 1
88/89	237	188	Barshinger ca 1993, table 1b
88/89	237	188	Meyers 1994, table 6
88/89	246		No title (1988/89 St. Thomas/St. John commercial fishers) @ DFW
89/90	198	206	Barshinger ca 1992, table 1
89/90	198	206	Barshinger ca 1993, table 1b
89/90	198	206	Meyers 1994, table 6
89/90		120	1989/90 Commercial Fisherman St. Croix, 10-9-01 @ DFW
89/90	329		1998/90 Commercial Fishermen St. Thomas/St. John @ DFW
90/91	153		1990 Commercial Fishermen Roster @ DFW
90/91		122	1990/91 Commercial Fisherman St. Croix, 11-5-03 @ DFW
90/91	182	188	Barshinger ca 1993, table 1b
90/91	182	188	Meyers 1994, table 6
90/91	350		1990/91 Commercial Fishermen St. Thomas/St. John @ DFW
90/91	156		Master Fishermen Report List 1990-91 @ DFW
91/92	230	197	DFW 1993, table 1
91/92	231	197	Meyers 1994, table 6

APPENDIX 1 (continued)
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
91/92	230		St. Thomas/St. John Fishermen 1991/92, sorted by name @ DFW
91/92	231		1991/92 Commercial Fishermen St. Thomas/St. John @ DFW
91/92	119		Fishermen in the USVI Registration YR 91(St. Thomas/St. John) @ DFW
91/92	130		1991 Commercial Fishermen Roster (St. Thomas/St. John) @ DFW
91/92	230		no title 6/8/93 (St. Thomas/St. John fishermen list 1991/92) @ DFW
91/92	229		St. Thomas/St. John Fishermen 91-92, 6/30/92 @ DFW
91/92	204		St. Thomas/St. John Fishermen 91-92, sorted by buoy 2/4/92 @ DFW
91/92		197	1991/92 Commercial Fishermen St. Croix, 11-5-03 @ DFW
91/92		197	STX 91/92 Fishermen List (St. Croix), 10/16/92 @ DFW
91/92		197	St. Croix 91-92, 6/22/93 @ DFW
92/93	212	197	Meyers 1994, table 6
92/93	296		Fishermen Gauge Distribution (St. Thomas/St. John) @ DFW
92/93	231		Standard Report 1/7/94 (St. Thomas/St. John) @ DFW
92/93	232		1992/93 Fishermen List (St. Thomas/St. John) @ DFW
92/93	222		Catch reporting compliance 1992/93, printed 6/8/93 @ DFW
92/93	222		1992/93 Commercial Fishermen St. Thomas/St. John @ DFW
92/93	226		1992/93 Commercial Fishermen St. Thomas/St. John @ DFW
92/93	230		LOGB92.WB1 92-93 (St. Thomas/St. John) @ DFW
92/93	264		St. Thomas-St. John Fishermen 92-93 by buoy color 8/10/92 @ DFW
92/93		197	1992/93 Commercial Fishermen St. Croix, 11-5-03 @ DFW
92/93		171	St. Croix 92/93 Fishermen's List @ DFW
92/93	231		1992/93 Fishermen List (St. Thomas/St. John) @ DFW
93/94	233	241	Barshinger 1997, table 1 St. Croix, table 9 St. Thomas/St. John
93/94	233	241	Tobias 1997, table 1 St. Croix, table 9 St. Thomas/St. John
93/94	242		1993/94 Commercial Fishermen St. Thomas/St. John @ DFW
93/94	237		1993/94 Commercial Fishermen St. Thomas/St. John @ DFW
93/94	231		1993/94 Commercial Fishermen St. Thomas/St. John @ DFW
93/94	207		1993/94 Fishermen List (St. Thomas/St. John) @ DFW
93/94		240	XFISHM93 (St. Croix), 5/18/94 @ DFW
93/94	193		1993/94 Commercial Fishermen Compliance List (St. Thomas/St. John) @ DFW
94/95	203	193	Barshinger 1997, table 1 St. Croix, table 9 St. Thomas/St. John
94/95	203	193	Tobias 1997, table 1 St. Croix, table 9 St. Thomas/St. John
94/95	152		1994/95 Commercial Fishermen St. Thomas/St. John @ DFW

APPENDIX 1 (continued)
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
94/95	228		1994/95 Fishermen List (St. Thomas/St. John) @ DFW
94/95	160		1994-95 List of Fishermen IDs (St. Thomas/St. John) @ DFW
94/95	326		Standard Report 2/15/94 (St. Thomas/St. John 1994-95) @ DFW
94/95	156		FISHMN94, 10/18/94 (St. Thomas/St. John 1994/95) @ DFW
94/95	202		Commercial fishermen identification numbers for 1994-95 reporting year (St. Thomas/St. John) @ DFW
95/96	182	180	Barshinger 1997, table 1 St. Croix, table 9 St. Thomas/St. John
95/96	182	180	Tobias 1997, table 1 St. Croix, table 9 St. Thomas/St. John
95/96	183		Commercial Fishermen 1995/96 FMN95fnl.CWK, 8/6/96 (St. Thomas/St. John) @ DFW
95/96	183		Fishermen List July 1995-June 1996 Alphabetic listing St. Thomas-St. John @DFW
95/96		198	95/96 STX @ DFW
95/96	183		Commercial Fishermen Reporting Compliance 1995-96 St. Thomas/St. John 7/1/06 @ DFW
96/97	131	212	Tobias et al 2000, table 1 St. Croix, table 10 St. Thomas/St. John
96/97	141		1996/97 Commercial Fishermen St. Thomas/St. John, 11/5/03 @ DFW
96/97		206	Commercial Fishermen License Registration 1996/97 (St. Croix) @ DFW
96/97	131		Commercial Fishermen 1996/97 List @ DFW
97/98	153	216	Tobias et al 2000, table 1 St. Croix, table 10 St. Thomas/St. John
97/98	151		Commercial Fishermen 1997/98 by Buoy Color St. Thomas-St. John, 5/6/98 @ DFW
97/98	153		Commercial Fishermen 1997/98 St. Thomas-St. John, 2/25/99 @ DFW
98/99	143	206	Tobias et al 2000, table 1 St. Croix, table 10 St. Thomas/St. John
98/99	186		Commercial Fishermen 1998/99 St. Thomas-St. John, 11/5/99 @ DFW
98/99		206	1998/99 Commercial Fishermen St. Croix, 11-5-03 @ DFW
98/99	186		1998/99 Commercial Fishermen St. Thomas/St. John, 11/5/99 @ DFW
99/00	152		1999/00 Commercial Fishermen St. Thomas/St. John, 11-5-03 @ DFW

APPENDIX 1 (continued)
NUMBER OF LICENSED COMMERCIAL FISHERS
AND SOURCE/REFERENCE OF NUMBER

year	STT/STJ	STX	source/reference
99/00		203	1999/00 Commercial Fishermen St. Croix, 11-5-03 @ DFW
99/00	152		FMEN 99 List, 7/23/01 (St. Thomas/St. John) @ DFW
99/00	147		COMP99, 7/23/01 (St. Thomas/St. John) @ DFW
00/01	160		2000/01 Commercial Fishermen STT/STJ, 11-5-03 @ DFW
00/01	159		FMEN00, 6/4/01 (St. Thomas/St. John) @ DFW
00/01		199	2000/01 Commercial Fishermen St. Croix, 11-5-04 @ DFW
00/01		213	2000/01 Fishermen's address (St. Croix) @ DFW
00/01		182	2000/01 Commercial Fishermen Registration (St. Croix), 11-5-04 @ DFW
00/01		198	counted registration forms
01/02	152		2001/02 Commercial Fishermen St. Thomas/St. John, 11-5-03 @ DFW
01/02	177		2001/02 Commercial Fishermen St. Thomas/St. John, 11-5-03 @ DFW
01/02	176		2001/02 Commercial Fishermen St. Thomas/St. John, 11-5-03 @ DFW
01/02		222	2001/02 Commercial Fishermen St. Croix 11-5-03 @ DFW
01/02		222	2001/02 STX Fishermen Compliance (St. Croix) @ DFW
01/02		206	counted registration forms
02/03		233	2002/03 Commercial Fishermen St. Croix List @ DFW
02/03		201	counted registration forms
02/03	161		2002/03 DFW Registered Commercial Fishers (St. Thomas/St. John) @ DFW
02/03	157		2002/03 Fishermen List St. Thomas/St. John @ DFW
03/04	171		2003/04 DFW Registered Commercial Fishers (St. Thomas/St. John) @ DFW
03/04		210	counted registration forms

APPENDIX 2.

Summary of Minimum, Maximum, Average, Mode, and Selected (mode unless otherwise indicated) Number of Licensed Commercial Fishers in St. Thomas/St. John, St. Croix, and the U.S. Virgin Islands

year*1	St. Thomas/St. John						St. Croix						US Virgin Islands Total			
	min	max	avg	mode*2	selected		min	max	avg	mode*2	selected		avg	mode*2	selected	
1974	230	621	286	230	230		220	227	224	220	220		510	450	450	
1975	312	312	312	312	312		197	197	197	197	197		509	509	509	
1976	170	621	500	621	621		168	225	211	225	225		711	846	846	
1977	162	171	164	162	162		103	103	103	103	103		267	265	265	
1978	161	167	162	161	161		120	121	120	120	120		282	281	281	
1979	192	212	207	212	212		105	143	134	143	143		341	355	355	
1980	234	258	250	258	258		163	163	163	163	163		413	421	421	
1981	256	256	256	256	256		322	322	322	322	322		578	578	578	
1982	245	259	257	259	259		195	195	195	195	195		452	454	454	
1983	176	255	242	255	255		182	182	182	182	182		424	437	437	
1984	222	255	248	255	255		182	182	182	182	182		430	437	437	
1985	227	330	304	330	330		206	206	206	206	206		510	536	536	
1986	329	329	329	329	329		200	201	200	200	200		529	529	529	
1987	306	312	307	306	306		217	217	217	217	217		524	523	523	
1988	237	246	239	237	237		188	188	188	188	188		427	425	425	
1989	198	329	231	198	198		120	206	185	206	206		415	404	404	
1990	153	350	205	182	182		122	188	166	188	188		371	370	370	
1991	119	231	204	230	230		197	197	197	197	197		401	427	427	
1992	212	296	237	231	231		171	197	188	197	197		425	428	428	
1993	193	242	225	233	233		240	241	241	241	241		466	474	474	
1994	152	326	204	203	203		193	193	193	193	193		397	396	396	
1995	182	183	183	183	183		180	198	186	180	180		369	363	363	
1996	131	141	134	131	131		206	212	209	#N/A	212*3		343	#N/A	343	
1997	151	153	152	153	153		216	216	216	#N/A	216*3		368	#N/A	369	
1998	143	186	172	186	186*4		206	206	206	206	206		378	392	392	

APPENDIX 2 (continued).
Summary of Minimum, Maximum, Average, Mode, and Selected (mode unless otherwise indicated) Number of Licensed Commercial Fishers in St. Thomas/St. John, St. Croix, and the U.S. Virgin Islands

year*1	St. Thomas/St. John					St. Croix					US Virgin Islands Total				
	min	max	avg	mode*2	selected	min	max	avg	mode*2	selected	min	max	avg	mode*2	selected
1999	147	152	150	152	152*4	203	203	203	#N/A	203*3	353	#N/A	353	#N/A	355
2000	159	160	160	#N/A	160*4	182	213	198	#N/A	198*5	358	#N/A	358	#N/A	358
2001	152	177	168	#N/A	176*4	206	222	217	222	206*5	385	#N/A	382	#N/A	382
2002	157	161	159	#N/A	157*4	201	233	217	#N/A	201*5	376	#N/A	358	#N/A	358
2003	171	171	171	#N/A	171*4	210	210	210	#N/A	210*5	381	#N/A	381	#N/A	381

***notes:**

1. Year refers to the fishing year (June 1974 to July 1975 is noted as 1974), not calendar year
2. #N/A in mode column indicates that no mode could be calculated since there was only one estimate for that year.
3. Selected numbers of licensed commercial fishers in St. Croix were from average, no mode could be calculated since there was only one estimate for that year.
4. Selected numbers of licensed commercial fishers in St. Thomas/St. John were from final official lists of licensed commercial fishers that are maintained at DFW/St. Thomas office.
5. Selected numbers of licensed commercial fishers in St. Croix were from counting commercial fisher registration slips for that year.