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L. H. Griggs
N. M. Davies

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L. H. Griggs[1]
N. M. Davies[2]

[1]NIWA
Private Bag 14901
Wellington

[2]NIWA
P O Box 109695
Newmarket
Auckland

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EXECUTIVE SUMMARY

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Ministry of Fisheries observers working on tuna longline vessels have collected a time series of quality swordfish length, weight, and sex data from 1987 onwards. Data collected by observers were compared with commercial catch effort data. Length frequencies, length weight relationships, and sex ratios are derived from and presented for swordfish data collected by the Ministry of Fisheries Observer Programme, up to December 2005.

The time series of observer length frequency data was formatted and input to the "catch.at.age" software developed by NIWA to derive weighted mean length frequencies. Data were stratified spatially by North and South regions and temporally by year and quarter. Sex-specific proportions at length are presented by stratum for 2005 with bootstrapped c.v.s. Sex ratios, by size class, were derived from the numbers of fish estimated by size class using "catch.at.age".

1. INTRODUCTION

Biological and fishery observations for southwest Pacific Ocean swordfish (Xiphias gladius) have been input to a regional stock assessment. In this project biological data on swordfish in New Zealand waters are collated, reviewed, and summarised. Longline data collected by observers provide independent biological information for specifying biological parameters, including length at age data for fitting growth functions, length-weight, and maximum length. This information was assessed for its utility in swordfish stock assessment (Davies et al. 2005) and has been used in a regional stock assessment for swordfish in objective 4 of this project (Davies et al. 2006).

MFish observer data for swordfish collected from 1987 to 2004 provided a time series used to summarise longline catch length frequencies, length-weight relationship, and sex ratios completed under project SWO2003/01 (Griggs 2005). In this project we update this information with the inclusion of the 2005 year, and include revised summaries.

This report addresses objective 2 of Ministry of Fisheries project SWO2004/01: To analyse length frequency, sex ratio, and reproductive condition data for swordfish collected by the Observer Programme and other sources to include the 2005 year, for input into stock assessment models.

2. METHODS

2.1 Data sources

Longline data collected by the MFish Observer Programme were the main source of biological data for swordfish. Length frequency, length-weight, and biological data collected by Ministry of Fisheries observers working on tuna longline vessels fishing in the New Zealand EEZ were extracted from the database l_line (Mackay & Griggs 2001).

Commercial data are recorded by personnel of fishing vessels on TLCER and CELR forms and were extracted from database tuna (Wei 2005).

2.2 Biological data analysis

Length frequencies, length-weight relationships, and sex ratios were derived from swordfish data, for January 1996 to December 2005.

The time series of observer length frequency data was formatted and input to the "catch.at.age" software developed by NIWA (Bull & Dunn 2002) to derive weighted mean catch-at-length frequencies by sex for individual temporal and spatial strata, and pooled over strata. Data were stratified spatially by North and South regions and temporally by year and quarter. "North" included sets in FMAs 1, 2, 8, 9, and 10; "South" included sets from FMAs 3, 4, 5, 6, and 7. Quarters are defined as 1st, January to March, 2nd, April to June, etc. Estimates of variance for sex-specific proportions at length were calculated from 300 bootstraps. Swordfish were grouped into 10 cm size classes.

To derive landing weights, data from observed sets were matched to data recorded on TLCER or CELR forms. Matching these sets revealed that observers recorded higher numbers of swordfish than the vessel. Landing weights were therefore derived from observer sample length frequencies converted to a landing

weight using a sex-specific length-weight function (Griggs 2005). Total stratum weights were taken from TLCER and CELR data.

Sex-specific proportions at length by stratum with c.v.s are presented for 2005, and the pooled annual estimates are presented for 1996 to 2005. Sex ratios, by size class, were derived from the estimated sex-specific numbers of fish in each size class.

3. RESULTS

3.1 Temporal and spatial distribution of the data

A summary of the number of trips, sets, and hooks observed, and the percentage observed of the total hooks set by the fishery from 1987 to 2005 is given in Table 1. Observed hooks by fleet are shown in Table 2. Foreign licensed vessels have not fished in New Zealand waters since 1995. Since 1998, there has been total coverage by observers on Japanese charter vessels (except for observer breaks), and the Philippine charter vessels which fished in New Zealand in 2003 were also fully observed. Coverage of the domestic fishery has been relatively poor, averaging 4.4% over the past 10 years, and less than 10% each year.

The number of observed sets, and number of swordfish caught, by year and month are shown in Table 3. Most observed sets occurred in April to July during the southern bluefin tuna season, with the most sets in May-June. Swordfish were caught in all months, with highest catch rates in June-July.

The number of observed sets, and number of swordfish caught, by year and FMA are shown in Table 4. Observed sets were mostly in FMAs 5, 7, and 2.

Positions of all reported sets, observed sets, and reported and observed sets where swordfish were captured, from 1987 to 2005, are shown in Figure 1. Swordfish were caught all around the North Island and the Kermadecs where longline sets occur, and off the west coast of the South Island, as far south as 47° S, and few were reported caught on the east coast of the South Island.

Positions of reported sets, observed sets, and observed sets where swordfish were captured are shown by year in Figure 2.

In the early years (1987–89), captures were in FMA 2 only, where captures remained highest in most years. Captures in FMA 7 were seen from 1990 onwards, and in FMA1 from 1991 onwards. In 1992–95, most sets were in FMA 5, but only one swordfish was caught in this area. In 1995, swordfish were caught only north of 37.45° S, and no swordfish were caught on the west coast of the South Island in FMA 5 and FMA 7, where most sets were observed. From 1997, catches on the west coast of the South Island in FMA 5 and FMA 7 increased and peaked in 1999. Captures in FMA 9 were highest in 1998. There were some captures in FMA 8 in 2001. Catches in FMA 10 increased from 2000. Catches extended further north in 2001, including the Kermadecs and an area outside the EEZ. Catches in the north part of FMA 10 were seen in 2003.

Reported and observed sets, by quarter, are shown in Table 5 and Table 6 gives a breakdown of hooks by year and quarter. Percentages of reported and observed sets by area and quarter are given in Table 7.

3.2 Biological data

A summary of swordfish data stored in the l_line database recorded by observers from 1987 to 2005 is shown in Table 8 by year, and types of measurements and samples taken.

3.3 Length frequency analyses

Between 1987 and 2005, 5768 swordfish were recorded by observers, and lengths were measured for most (86%) fish (Table 8). Two length measurements were recorded for swordfish: lower jaw fork length, which is hereafter referred to as "fork length" FL, and eye to fork length (EFL).

A summary of swordfish length (FL) frequency parameters recorded by observers, categorised by year, region of capture, and sex is shown in Table 9.

A summary of the number of swordfish fork lengths recorded by year, quarter, and area strata used as input into length frequency analysis using "catch.at.age" is given in Table 10.

Total reported stratum weights are shown in Table 11. These were relative weights of each stratum that was input to "catch.at.age" and used to scale up the stratum length frequencies to the estimated total number of fish at length landed in each stratum.

Sex-specific observer proportions at length in 2005, by stratum, are shown in Figure 3, illustrating seasonal variation in swordfish length composition in the North stratum. The length structure of the swordfish population appeared to change through the year. In 2005, most of the catch comprised females in the first and third quarters, while in the second quarter there was a greater proportion of smaller fish and a lower proportion of females.

A comparison of the length composition by stratum indicates the larger average size of swordfish in the South stratum (Figure 4). However, the sample from quarter 2 in the South stratum is made up of 16 fish (see Table 10) and so contributes little to the proportions at length estimate pooled over all strata (Figure 4).

A 10-year time series (from 1996 to 2005) of proportions at length with c.v.s for male and female swordfish shows variation from year to year, a distribution of larger females than males, and absolutely more females than males (Figure 5). Stratum-specific mean-weighted c.v.s are given for 2005 in Table 12.

Unscaled observer length frequencies for the 1987–2004 time series (from Griggs 2005) are shown in Appendix 1.

3.4 Sex ratios

Sex ratios recorded by observers are presented by year in Table 13. There were consistently more females than males, and over all years (1987–2005) the percentage of females in the catch was 76%, and the ratio of females to males was 3.15:1.

The proportion of females in the catch varied from year to year. In 1990, 96% of the catch was females (total = 320), while in 2004, only 58% of the catch were females (total = 310).

A 10-year time series (from 1996 to 2005) of the proportions of males, using numbers of fish estimated from "catch.at.age", is shown using North and South strata combined in Figure 6. There were lower proportions of males with increasing size, and there appeared to be lower proportions of males in the South, although South strata are based on fewer fish (see Table 10) and trends in the South are less obvious than in the North.

3.5 Length-weight relationships

Annual linear regression parameters for longline length-weight relationships, are presented in Table 14, with relative consistency evident between years. Length-weight parameters by area and sex show differences between North and South, and between males and females (Table 14).

3.6 Life status

The life status of swordfish recorded by observers, by year, is shown in Table 15. Over all years (1987–2005), 40% of swordfish were landed alive and 60% were dead. This suggests a fairly low survival rate for those that are lost or discarded. In the North region, 36% were alive, while in the South, 52% were alive suggesting a lower survival rate in the North. Proportions alive were similar for males and females.

3.7 Maturity

Gonad maturity data are not routinely collected by observers on tuna longline vessels. Maturity data collected in 2003 and 2004 were summarised by Griggs et al. (2005).

4. DISCUSSION

A time series of length composition is a fundamental input in pelagic stock assessments in the Western and Central Pacific. MFish tuna longline observer data provided a time series of swordfish length, weight, and sex data from 1987 onwards that is of credible quality in terms of measurement and recording accuracy. Only limited data are available from other sources, and they do not offer any length composition information (Griggs 2005).

In addition to length frequencies, length-weight relationships, and sex ratio information, observer data also offer information on life status and stomach contents, and there is some data on gonad condition collected in 2003 and 2004 (Griggs 2005). Maturity information and ageing structures have been used to estimate the age at maturity and spawning (Griggs et al. 2005).

Relatively low observer coverage in the New Zealand domestic fishery means that the observer data may not represent this fleet well.

The data presented here have been reviewed further under objective 4 of project SWO2003/01 to identify their utility for a swordfish regional stock assessment model (Davies et al. 2005).

This information was used as input into a stock assessment for swordfish in objective 4 of this project (Davies et al. 2006).

5. ACKNOWLEDGEMENTS

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Table 1: Summary of observer longline data in *l_line* database.

Year	No. of observed trips	No of observed sets	No. of observed hooks	% of total hooks in fishery
1987	1	13	37 935	0.2
1988	3	41	116 491	0.9
1989	5	87	234 826	2.4
1990	6	154	447 239	5.2
1991	3	150	421 808	2.7
1992	12	273	528 154	5.0
1993	18	421	1 057 985	15.2
1994	10	256	711 630	22.2
1995	11	332	868 431	20.6
1996	5	144	160 042	6.6
1997	15	424	962 754	27.1
1998	16	453	1 076 063	24.3
1999	10	439	1 076 843	14.5
2000	13	310	703 148	8.7
2001	25	503	1 095 895	11.1
2002	14	360	872 700	8.1
2003	9	616	1 905 659	18.9
2004	16	549	1 464 465	21.5
2005	15	348	716 399	18.6
Total	207	5 873	14 458 467	

Table 2: Observed hooks set by fleet in the tuna longline fishery.

	Japanese foreign		Japanese charter		N.Z. domestic		Philippine charter	
Year	hooks observed	% of hooks set	hooks observed	% of hooks set	hooks observed	% of hooks set	hooks observed	% of hooks set
1987	37 935	0.2		0.0				
1988	116 491	1.0		0.0				
1989	120 823	1.5	114 003	8.0				
1990	330 893	4.7	116 346	7.5		0.0		
1991	229 952	1.8	191 856	8.6		0.0		
1992	508 629	5.8		0.0	19 525	6.5		
1993	604 804	13.7	453 181	29.3		0.0		
1994	121 705	51.4	571 557	41.1	18 368	1.2		
1995	201 761	87.6	533 559	43.3	133 111	4.8		
1996					160 042	6.6		
1997			756 168	62.2	206 586	8.8		
1998			870 895	96.4	205 168	5.8		
1999			1 052 721	95.2	24 122	0.4		
2000			659 923	80.3	43 225	0.6		
2001			597 334	99.6	498 561	5.4		
2002			675 683	94.0	197 017	2.0		
2003			879 035	92.9	241 779	3.0	78 4845	78.8
2004			1 070 716	91.5	393 749	7.0		
2005			562 825	87.7	153 574	4.8		

Table 3: Observed longline sets, and swordfish captures, by year and month.

Number of observed longline sets:

							Month					
Year	1	2	3	4	5	6	7	8	9	10	11	12	All
1987						11	2						13
1988						41							41
1989				10	28	49							87
1990				24	34	33	48	15					154
1991						40	82	28					150
1992				49	99	90	35						273
1993			13	126	108	95	78	1					421
1994			8	52	111	72		3				10	256
1995	20	6		55	110	79	40	16	3			3	332
1996	13	12		32	52	29	6						144
1997	17	36	27	70	133	116	25						424
1998		39	35	45	121	137	51	10				15	453
1999	15	7	13	87	127	136	36	14				4	439
2000	6	16	6	38	111	105	19					9	310
2001	57	56	31	52	155	82	22		10	17	12	9	503
2002	19	31	11	56	135	96		5	7				360
2003			1	91	204	182	85	51	2				616
2004			25	131	161	166	62	4					549
2005	3	5		59	81	99	84	8	4	4	1		348
Total	150	208	170	977	1 770	1 658	675	155	26	21	13	50	5 873
%	2.6	3.5	2.9	16.6	30.1	28.2	11.5	2.6	0.4	0.4	0.2	0.9	

Number of swordfish caught:

							Month					
Year	1	2	3	4	5	6	7	8	9	10	11	12	All
1987						10	2						12
1988						125							125
1989						210							210
1990				2	17	70	269	132					490
1991						101	173	26					300
1992					57	267	33						357
1993					3	139	84	2					228
1994					2	80						9	91
1995	5	2				2	5	11	4				29
1996	10	8			17	15							50
1997	3	41	38	7	43	205	163						500
1998		69	55	57	16	145	205	29				13	589
1999	21	9		3	62	123	83	30				2	333
2000	10	33	49	6	25	144	41						308
2001	82	132	146	90	142	90	89		14	25	3	13	826
2002	36	82	6	24	22	95		2	1				268
2003				8	30	58	79	13					188
2004			45	120	33	112	84	2					396
2005	26	90		63	91	72	113	9	2	1	1		468
Total	193	466	339	380	560	2 063	1 423	256	21	26	4	37	5 768
%	3.3	8.1	5.9	6.6	9.7	35.8	24.7	4.4	0.4	0.5	0.1	0.6	

Table 4: Observed longline sets, and swordfish captures, by year and FMA (X=outside EEZ).

Number of observed longline sets:

											FMA
Year	1	2	3	4	5	6	7	8	9	10	X	Total
1987		13										13
1988		41										41
1989		48	20		19							87
1990		75	12	1	60		4			2		154
1991	32	86					28			4		150
1992	21	75			111		62		4			273
1993	10	116	7		221		66			1		421
1994	10	17	2		138		75		14			256
1995	19	24	1		192		83			13		332
1996	39	24			35		46					144
1997	59	86	60		46	7	166					424
1998	30	111	31		93	5	134		49			453
1999	14	29	61		199	1	123		3	9		439
2000	21	29	21		74		149		8	6	2	310
2001	74	118	12		162	5	66	2	33	21	10	503
2002	47	34	4		151	3	113		8			360
2003	46	73	3		162	2	182	1	29	111	7	616
2004	19	68	2		231	1	202		21	5		549
2005	44	124			68		97		5		10	348
Total	485	1 191	236	1	1 962	24	1 596	3	174	172	29	5 873
	8.3	20.3	4.0	0.0	33.4	0.4	27.2	0.1	3.0	2.9	0.5	

Number of swordfish caught:

											FMA
Year	1	2	3	4	5	6	7	8	9	10	X	All
1987		12										12
1988		125										125
1989		210										210
1990		469			12		7			2		490
1991	28	230					31			11		300
1992	22	325					4		6			357
1993	15	198			1		10			4		228
1994	9	36					2		44			91
1995	3	16								10		29
1996	22	18					10					50
1997	73	390			3		34					500
1998	59	386			5		50		89			589
1999	17	78			85		129		11	13		333
2000	30	107			9		104		29	26	3	308
2001	136	443			85		30	2	43	38	49	826
2002	69	90			9		63		37			268
2003	5	12			19		49		68	34	1	188
2004	75	190			6		29		54	42		396
2005	75	251			2		15		9		116	468
Total	638	3 586	0	0	236	0	567	2	390	180	169	5 768
	11.1	62.2	0.0	0.0	4.1	0.0	9.8	0.0	6.8	3.1	2.9	

Table 5: Temporal distribution of observed sets by year and quarter, compared with those fished.

	Reported sets					Observed sets				
					Quarter					Quarter
Year	1	2	3	4	All	1	2	3	4	All
1987	1 236	3 262	1 629		6127		10	2		12
1988	618	3 093	1 344		5055		125			125
1989	249	2 426	758	6	3439		210			210
1990	223	1 778	1 185	81	3267		89	401		490
1991	518	3 589	1 472	119	5698		101	199		300
1992	382	2 808	942	48	4180		324	33		357
1993	406	2 203	516	183	3308		142	86		228
1994	718	1 482	333	387	2920		82		9	91
1995	1 371	1 951	406	636	4364	7	2	20		29
1996	1 298	1 444	218	415	3375	18	32			50
1997	1 194	1 439	266	393	3292	82	255	163		500
1998	1 032	1 439	860	759	4090	124	218	234	13	589
1999	1 650	2 009	1 489	1 407	6555	30	188	113	2	333
2000	1 822	2 272	1 465	1 319	6878	92	175	41		308
2001	2 005	2 548	2 234	1 412	8199	360	322	103	41	826
2002	2 236	3 298	1 825	1 254	8613	124	141	3		268
2003	1 711	3 766	1 126	608	7211		96	92		188
2004	1 072	2 687	1 172	128	5059	45	265	86		396
2005	605	1 239	1 059	77	2980	116	226	124	2	468
Total	20 346	44 733	20 299	9 232		998	3 003	1 700	67	5 768
	22%	47%	21%	10%		17%	52%	29%	1%	

Table 6: Percentage of hooks reported and observed each quarter and year.

	Reported sets				Observed sets			
				Quarter				Quarter
year	1	2	3	4	1	2	3	4
1987	19.9	53.2	26.9	0.0	0.0	85.1	14.9	0.0
1988	12.2	61.1	26.7	0.0	0.0	100.0	0.0	0.0
1989	7.3	70.6	22.1	0.1	0.0	100.0	0.0	0.0
1990	6.6	55.9	37.1	0.4	0.0	58.7	41.3	0.0
1991	6.8	65.6	26.8	0.8	0.0	25.7	74.3	0.0
1992	4.1	71.9	23.6	0.3	0.0	89.8	10.2	0.0
1993	7.5	75.7	14.3	2.5	3.2	78.8	18.0	0.0
1994	16.1	65.1	9.3	9.4	3.0	94.5	0.3	2.1
1995	22.6	54.9	11.1	11.4	3.4	79.8	16.5	0.3
1996	37.6	44.6	6.3	11.4	13.5	82.1	4.4	0.0
1997	29.1	55.6	6.9	8.5	8.3	84.4	7.3	0.0
1998	21.0	42.9	20.6	15.5	8.8	75.4	14.4	1.4
1999	20.8	36.9	22.4	20.0	4.8	82.8	12.1	0.3
2000	23.9	37.4	20.5	18.2	3.4	89.2	6.3	1.1
2001	22.8	34.3	26.4	16.5	15.2	74.4	6.4	4.0
2002	25.2	40.7	20.1	14.0	9.1	89.8	1.2	0.0
2003	20.2	55.0	17.5	7.3	0.1	75.6	24.3	0.0
2004	18.8	59.0	20.1	2.1	2.2	87.4	10.4	0.0
2005	17.5	46.0	34.4	2.0	1.1	74.3	24.3	0.4
Total	16.1	55.2	22.8	6.0	4.3	80.2	15.0	0.6

Table 7: Percentage of observed and reported sets in each quarter and year for all years combined (1987-2005).

	Reported sets				% in	Observed sets				% in
				Quarter	each				Quarter	each
FMA	1	2	3	4	FMA	1	2	3	4	FMA
1	21.5	25.1	31.8	21.6	34.1	36.1	28.5	22.3	13.2	7.9
2	24.4	56.6	15.1	3.9	29.0	18.0	48.9	32.1	1.1	19.4
3	24.6	75.1	0.0	0.3	6.4	16.1	83.9	0.0	0.0	3.8
4	17.1	82.4	0.0	0.5	0.2	0.0	100.0	0.0	0.0	0.0
5	9.7	90.3	0.1	0.0	11.0	1.5	98.5	0.0	0.0	32.0
6	51.8	48.2	0.0	0.0	0.2	37.5	62.5	0.0	0.0	0.4
7	5.0	77.5	17.4	0.1	5.6	0.3	90.8	9.0	0.0	26.0
8	81.0	13.2	4.5	1.3	0.3	66.7	33.3	0.0	0.0	0.0
9	34.8	24.8	32.7	7.7	9.0	27.6	42.0	29.9	0.6	2.8
10	1.6	3.2	80.9	14.3	1.9	0.0	7.0	89.5	3.5	2.8
other	27.2	26.1	35.1	11.6	2.1	27.6	13.8	58.6	0.0	0.5

Table 8: Summary of swordfish biological data recorded by observers in the observer longline database (no. SWO, total number caught; no. FL, number of lower jaw to fork length measurements; no. EFL, number of eye to fork length measurements; no. GW, number of greenweights recorded; no. PW, number of processed weights recorded; stomach, number of stomach contents examined; gonads, number from which gonads were collected; maturity, number from which gonad maturity data was collected; aged, number which were aged from aging structures collected).

Year	no. SWO	no. FL	no. EFL	no. GW	no. PW	no. sexed	stomach	gonads	maturity	aged
1987	12	12	12	0	12	8				
1988	125	97	96	39	57	83				
1989	210	115	115	51	61	85				
1990	490	444	439	383	439	320				
1991	300	258	176	176	226	166				
1992	357	243	255	294	327	142				
1993	228	204	134	194	199	188				
1994	91	82	81	81	83	82	54			
1995	29	24	24	17	18	20	25			
1996	50	41	31	0	3	38	42			
1997	500	433	428	304	363	442	326			
1998	589	543	502	329	323	490	439			
1999	333	311	306	242	278	277	274			
2000	308	275	247	150	190	259	266			
2001	826	705	690	456	424	619	464	83		
2002	268	242	217	127	131	198	160			
2003	188	160	143	80	164	153	153		131	86
2004	396	335	219	33	89	310	260		242	172
2005	468	440	413	124	161	367	378			
Total	5 768	4 964	4 528	3 080	3 548	4 247	2 841	83	373	258

Table 9: Summary of swordfish length frequency parameters caught by longline in the New Zealand EEZ, categorised by year, region of capture and sex (n, total sample size; North/South totals include unsexed fish).

Year	n	minimum	maximum	average	std. dev.
1987	12	115	222	166.0	31.3
1988	97	82	256	175.3	37.0
1989	115	99	247	171.5	31.8
1990	444	93	300	170.3	36.2
1991	258	110	290	177.9	37.1
1992	243	76	280	166.8	34.9
1993	204	42	289	187.4	39.5
1994	82	107	279	177.4	39.1
1995	24	105	285	179.5	40.1
1996	41	109	239	174.6	32.5
1997	433	78	278	183.4	35.2
1998	543	76	287	173.8	41.0
1999	311	82	295	203.4	43.8
2000	275	95	281	187.9	44.1
2001	705	78	295	166.8	47.6
2002	242	76	330	177.4	50.3
2003	160	68	314	192.1	54.2
2004	335	81	292	169.5	43.8
2005	440	81	272	170.6	44.9

	n	minimum	maximum	average	std. dev.
Males	989	76	289	162.9	37.5
Females	3122	78	330	186.2	42.3
North	3431	76	295	170.5	37.6
South	680	131	330	231.5	24.8
North, males	924	76	289	158.4	33.8
North, females	2507	78	295	175.0	37.9
South, males	65	173	287	228.0	24.9
South, females	615	131	330	231.9	24.8

Table 10: Number of observed swordfish fork length measurements by year and stratum.

	North				South			
Year	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1987		10	2					
1988		97						
1989		115						
1990		56	371			17		
1991		84	147			10	17	
1992		220	19			1	3	
1993		115	78			10	1	
1994		72		8		2		
1995	7		17					
1996	15	17				9		
1997	77	168	152			36		
1998	113	151	214	12		53		
1999	30		81	2		175	23	
2000	84	56	32			98	5	
2001	325	171	66	37		106		
2002	114	62	3			63		
2003		25	72			63		
2004	41	207	55			21	11	
2005	113	197	112	2		16		
All	919	1 823	1 421	61	0	680	60	0

Table 11: Swordfish reported stratum weights.

	North				South				
Year	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
1987	109 795	325 559	170 311	0	294	2 757	0	0	608 716
1988	0	222 485	67 550	0	0	1 257	0	0	291 292
1989	0	98 813	81 988	0	0	6 678	3 780	0	191 260
1990	270	29 359	185 469	1 073	112	16 174	175	0	232 633
1991	4 777	145 613	147 131	1 224	0	21 296	3 913	0	323 954
1992	6 928	209 891	25 097	21	0	2 796	9 178	0	253 912
1993	10 016	57 585	31 486	6 944	0	7 232	507	0	113 770
1994	29 705	42 508	11 391	4 351	0	1 313	651	0	89 918
1995	42 488	29 271	5 543	15 478	0	12 944	1 828	0	107 552
1996	92 037	59 523	8 027	10 542	1 554	6 173	571	0	178 428
1997	119 146	105 510	27 407	4 505	0	7 772	0	0	264 340
1998	125 802	214 876	96 323	34 408	0	18 721	0	0	490 130
1999	224 426	329 069	166 559	73 374	644	48 166	7 130	0	849 368
2000	280 871	388 884	109 796	87 784	1 870	36 073	1 530	0	906 807
2001	290 154	373 541	225 640	76 197	560	33 254	0	0	999 345
2002	293 029	327 587	141 090	50 746	10 563	40 423	0	0	863 438
2003	203 496	312 730	64 506	13 868	763	21 566	0	0	616 929
2004	119 597	267 327	79 516	9 065	4 424	40 763	4 869	0	525 562
2005	93 837	120 013	77 042	2 783	84	28 454	4 046	0	326 259

Table 12: Stratum-specific mean-weighted c.v.s for observer length frequency estimates, 2005.

	North				South	All strata
	2005 Q1	2005 Q2	2005 Q3	2005 Q4	2005 Q2	pooled
Male	77	92.5	103.8		115.1	63.9
Female	41.1	70.6	70.4	69	91.8	37.1
Unsexed	101.5	84	114.9	70	141	72.8
Total	37.1	48.4	59.5	69.5	84	30.1

Table 13: Annual sex ratios of swordfish caught by longline in New Zealand from observed samples 1987 to 2005.

	Males		Females	
Year	No.	%	No.	%
1987		0.0	8	100.0
1988	15	18.1	68	81.9
1989	11	12.9	74	87.1
1990	13	4.1	307	95.9
1991	64	38.6	102	61.4
1992	47	33.1	95	66.9
1993	51	27.1	137	72.9
1994	18	22.0	64	78.0
1995	9	45.0	11	55.0
1996	9	23.7	29	76.3
1997	90	20.4	352	79.6
1998	137	28.0	353	72.0
1999	37	13.4	240	86.6
2000	53	20.5	206	79.5
2001	174	28.1	445	71.9
2002	56	28.3	142	71.7
2003	25	16.3	128	83.7
2004	130	41.9	180	58.1
2005	84	22.9	283	77.1
1987-2005	1 023	24.1	3224	75.9

Table 14: Annual linear regression parameters for swordfish length-weight relationships from observed longline samples, and categorised by region of capture and sex.

Year	n	b_0	SE_{b0}	b_1	SE_{b1}	R^2
1987	0					
1988	39	-11.20	0.79	2.92	0.16	0.90
1989	45	-11.39	0.85	2.95	0.17	0.88
1990	382	-12.28	0.22	3.20	0.04	0.94
1991	174	-12.44	0.31	3.23	0.06	0.94
1992	217	-11.12	0.24	2.98	0.05	0.95
1993	190	-11.38	0.28	3.04	0.05	0.94
1994	81	-11.37	0.36	3.03	0.07	0.96
1995	16					
1996	0					
1997	296	-11.52	0.23	3.08	0.04	0.94
1998	325	-12.40	0.20	3.23	0.04	0.96
1999	241	-12.11	0.19	3.17	0.04	0.97
2000	146	-13.09	0.22	3.37	0.04	0.98
2001	449	-12.76	0.19	3.29	0.04	0.95
2002	121	-12.25	0.41	3.21	0.08	0.93
2003	80	-12.90	0.49	3.33	0.09	0.94
2004	33	-12.84	0.50	3.32	0.10	0.97
2005	120	-11.92	0.31	3.13	0.06	0.95
1987-2005	2 955	-12.42	0.07	3.23	0.01	0.95
North	2 410	-12.26	0.09	3.20	0.02	0.93
South	545	-9.12	0.31	2.63	0.06	0.79
Males	587	-11.95	0.16	3.14	0.03	0.94
Females	1 883	-12.47	0.10	3.24	0.02	0.94

Table 15: Annual life status of swordfish caught by longline in New Zealand from observed samples 1992 to 2004, and categorised by region of capture and sex.

Year	No. alive	% Alive	No. dead	% Dead
1992	135	40.1	202	59.9
1993	156	69.0	70	31.0
1994	39	46.4	45	53.6
1995	10	34.5	19	65.5
1996	16	34.8	30	65.2
1997	200	40.7	292	59.3
1998	180	30.9	403	69.1
1999	161	49.7	163	50.3
2000	128	42.5	173	57.5
2001	264	32.2	555	67.8
2002	91	34.2	175	65.8
2003	80	47.1	90	52.9
2004	135	35.5	245	64.5
2005	191	41.2	273	58.8
1987-2005	1 786	39.5	2 735	60.5
North	1 510	36.1	2 678	63.9
South	404	52.3	369	47.7
Males	354	33.7	695	66.3
Females	1 161	40.8	1 686	59.2

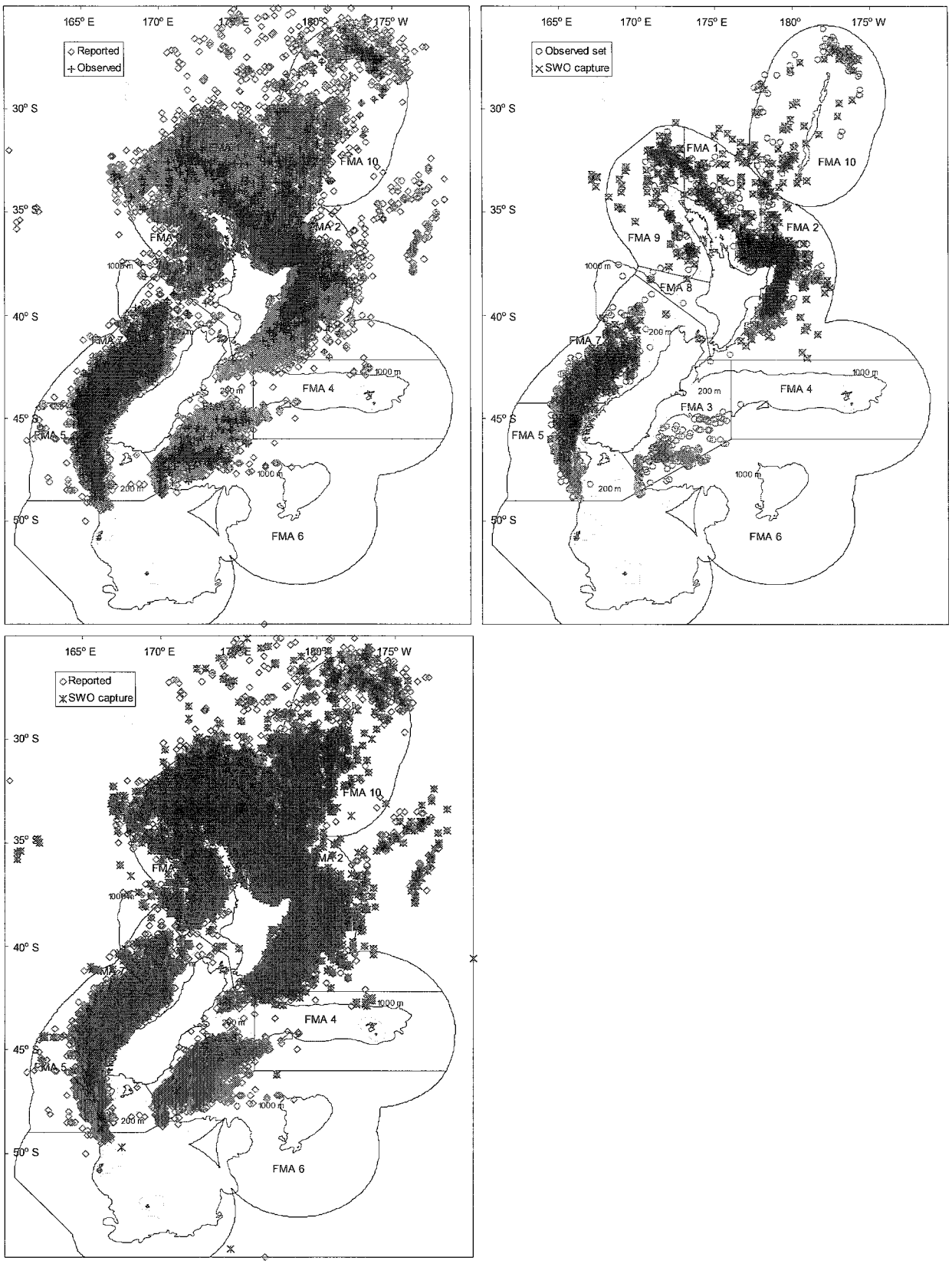
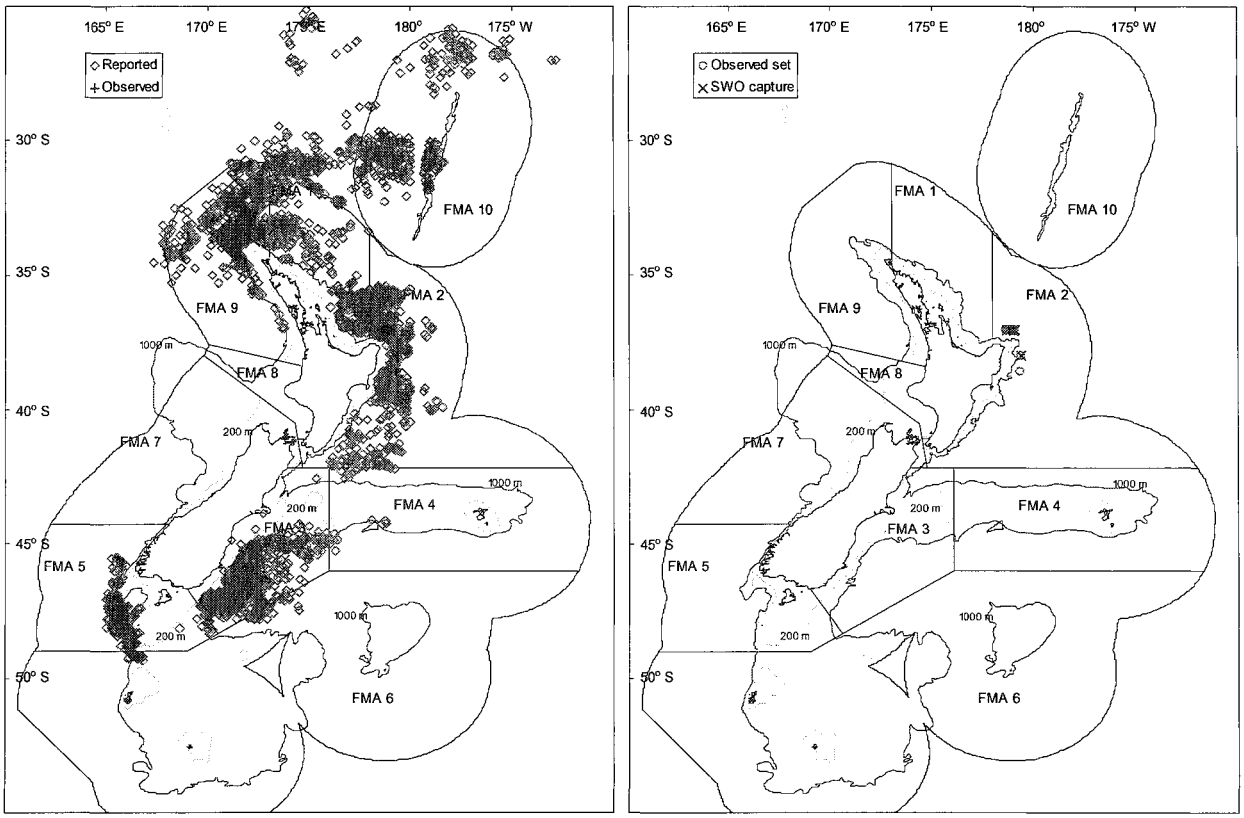


Figure 1: Reported and observed longline sets (top left), observed sets and observed swordfish captures (top right), reported sets and reported swordfish captures (bottom) for 1987 to 2005 combined.

1987



1988

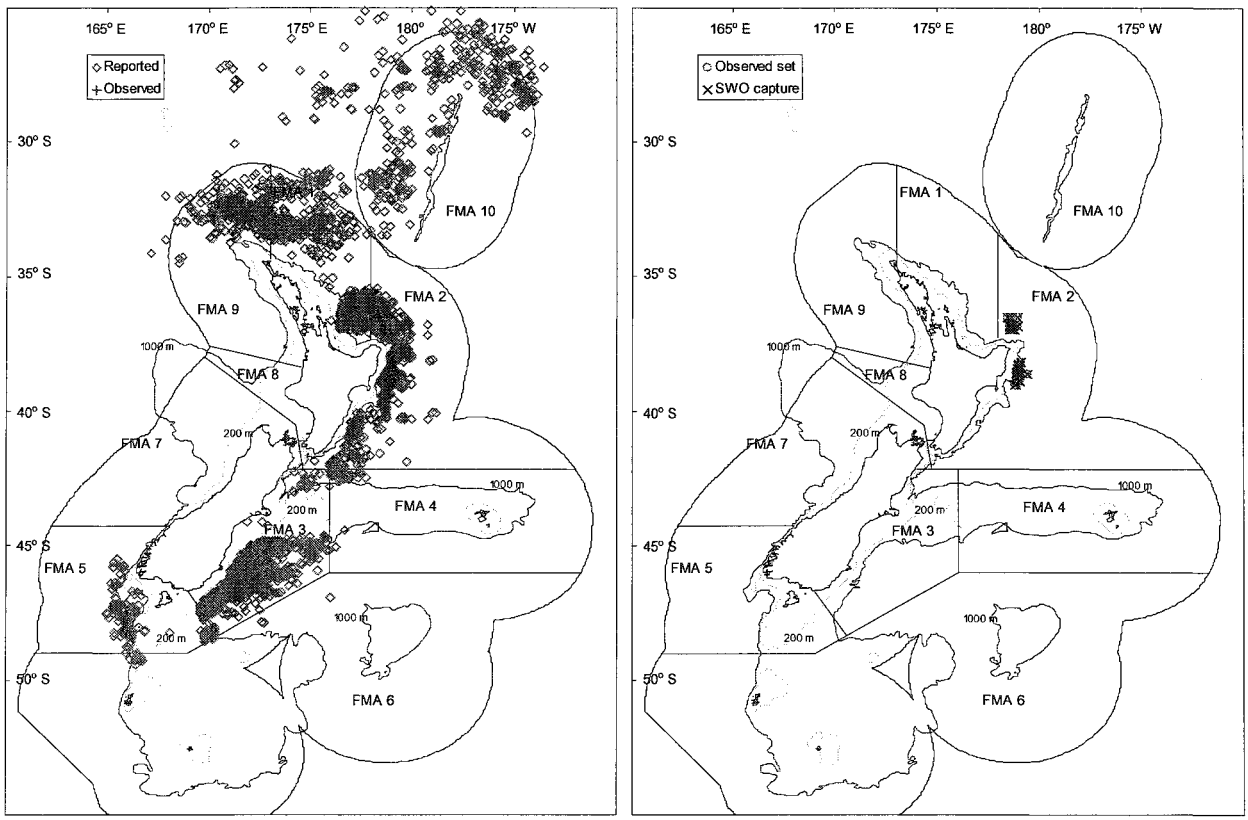
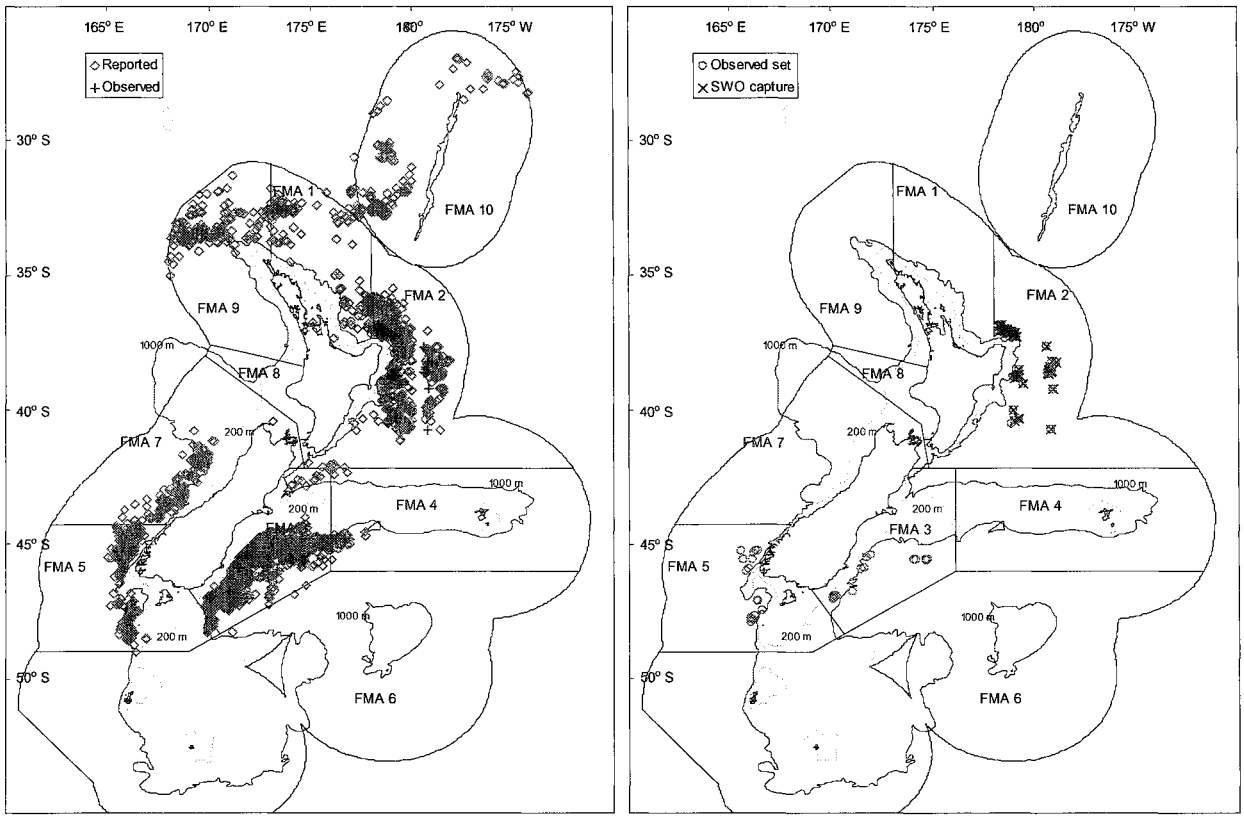


Figure 2: Reported and observed longline sets, and observed swordfish captures, by year.

1989



1990

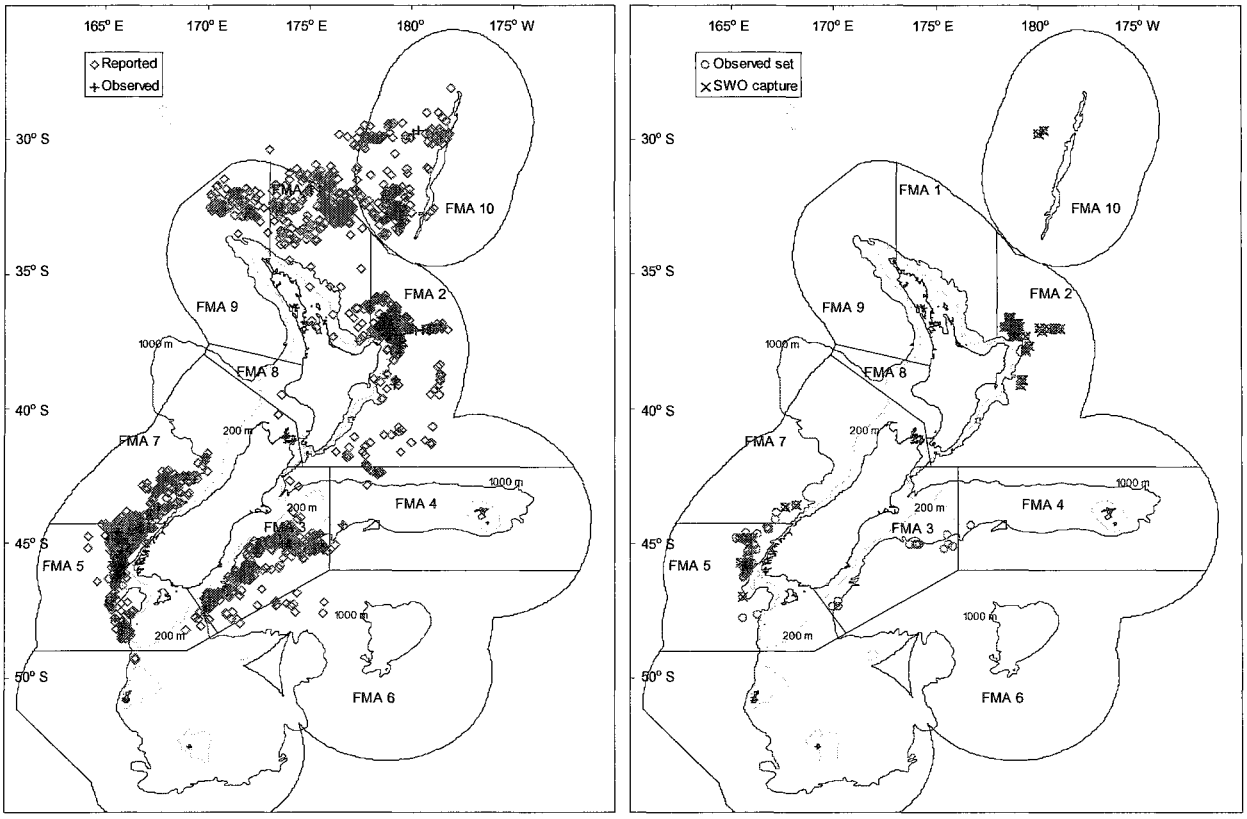
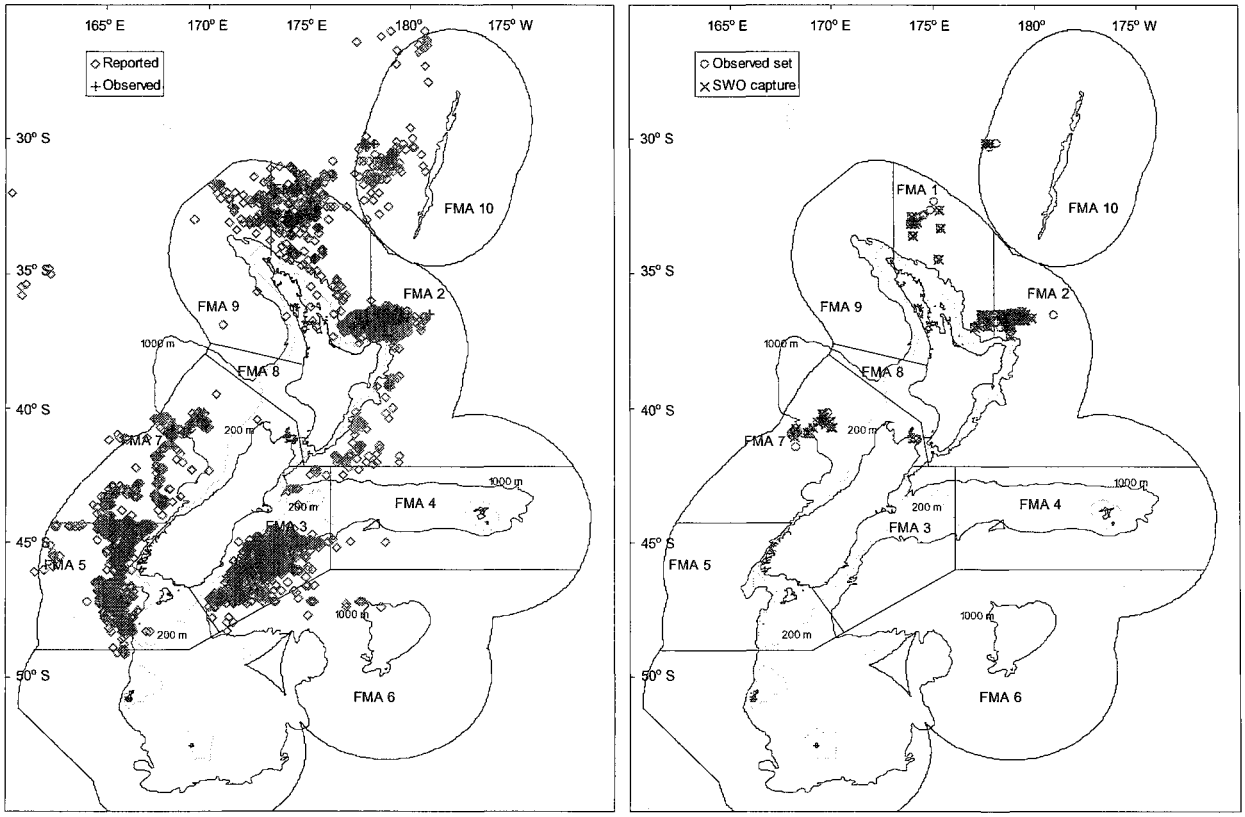


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

1991



1992

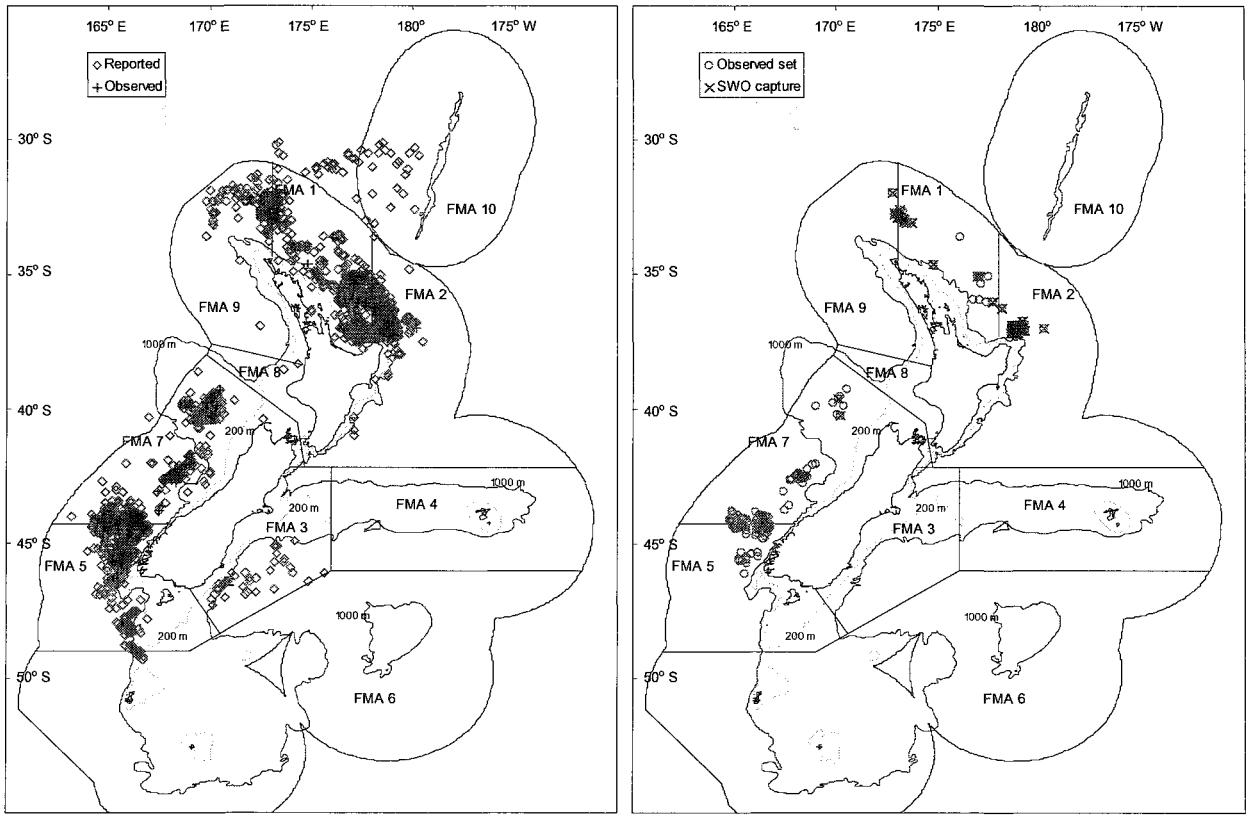
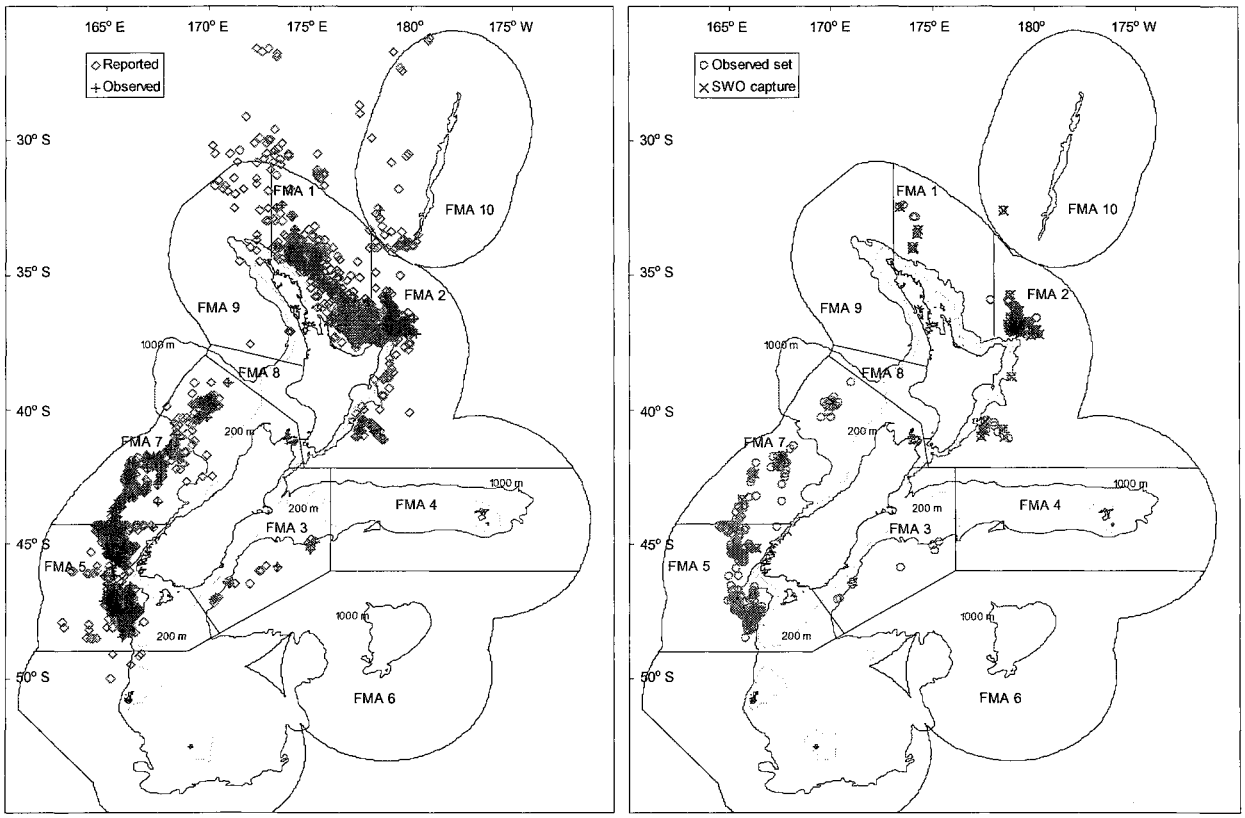


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

1993



1994

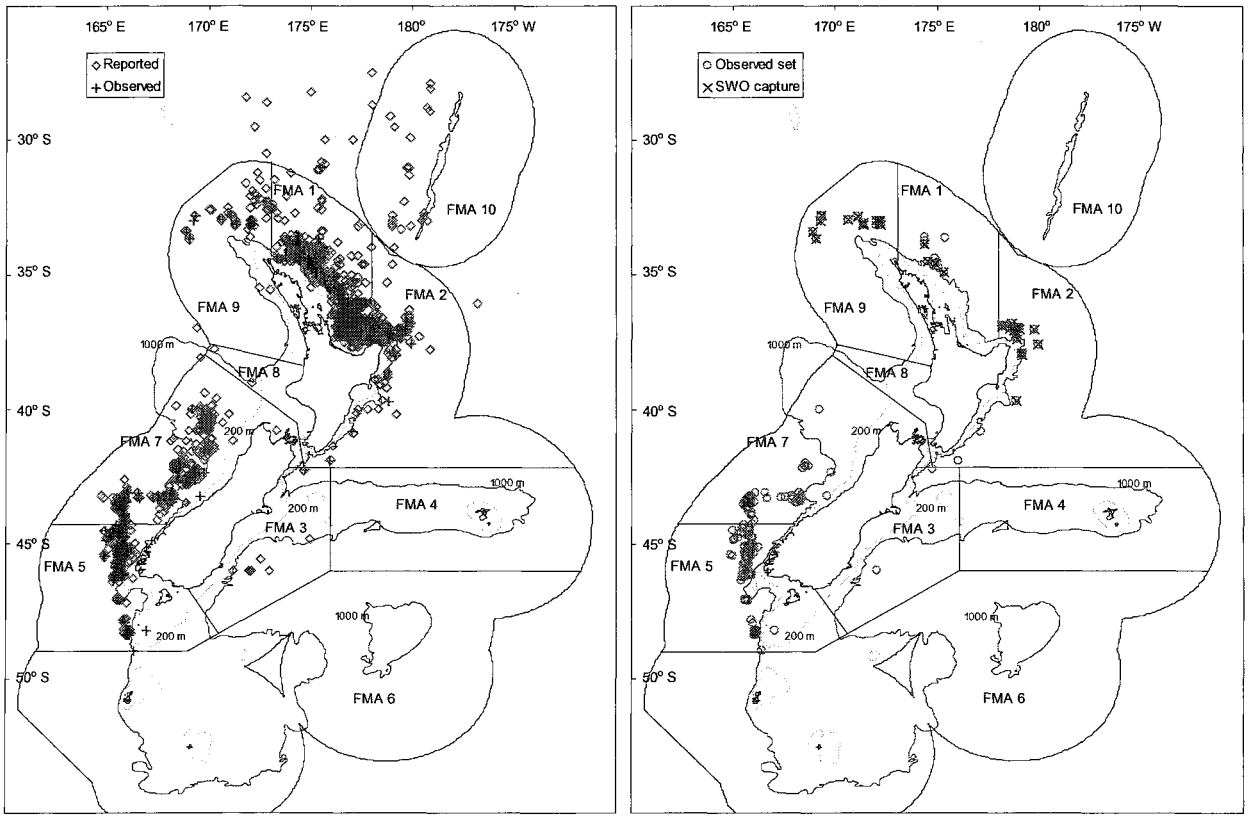
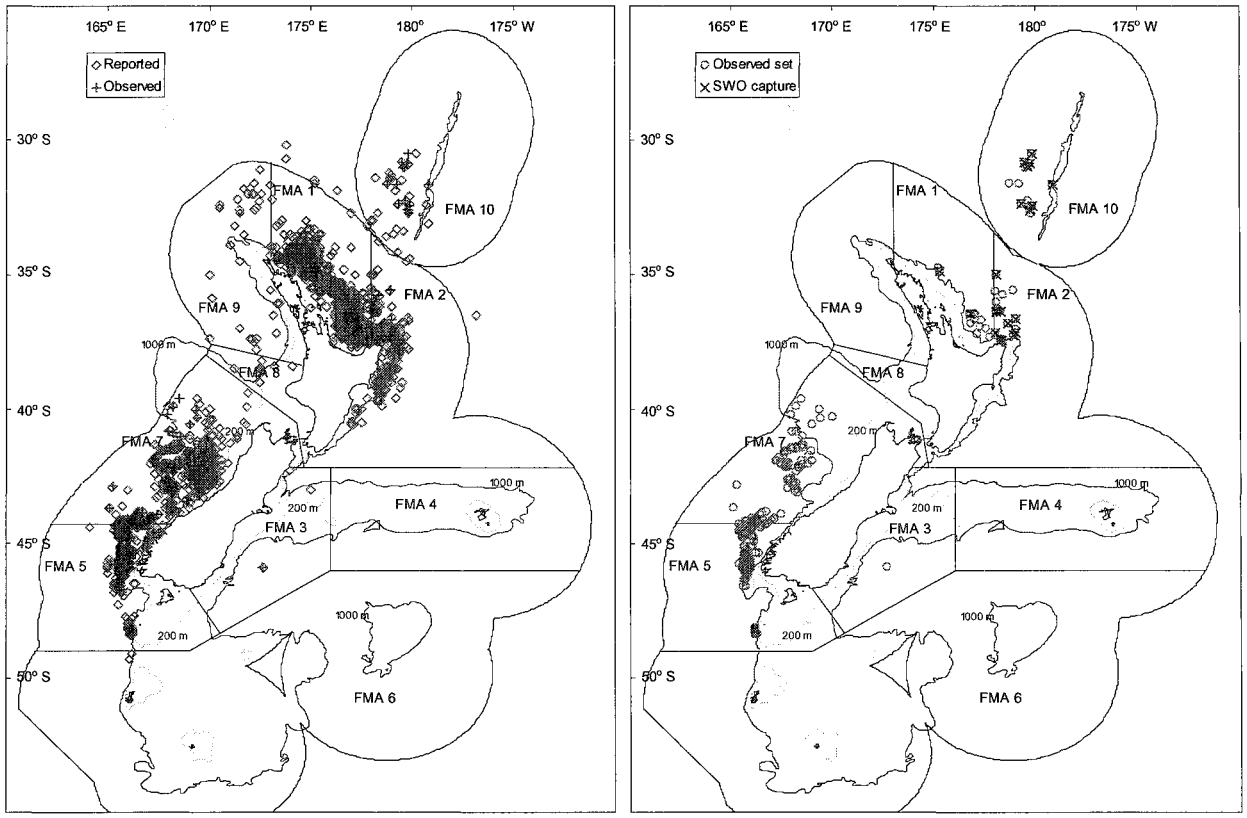


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

1995



1996

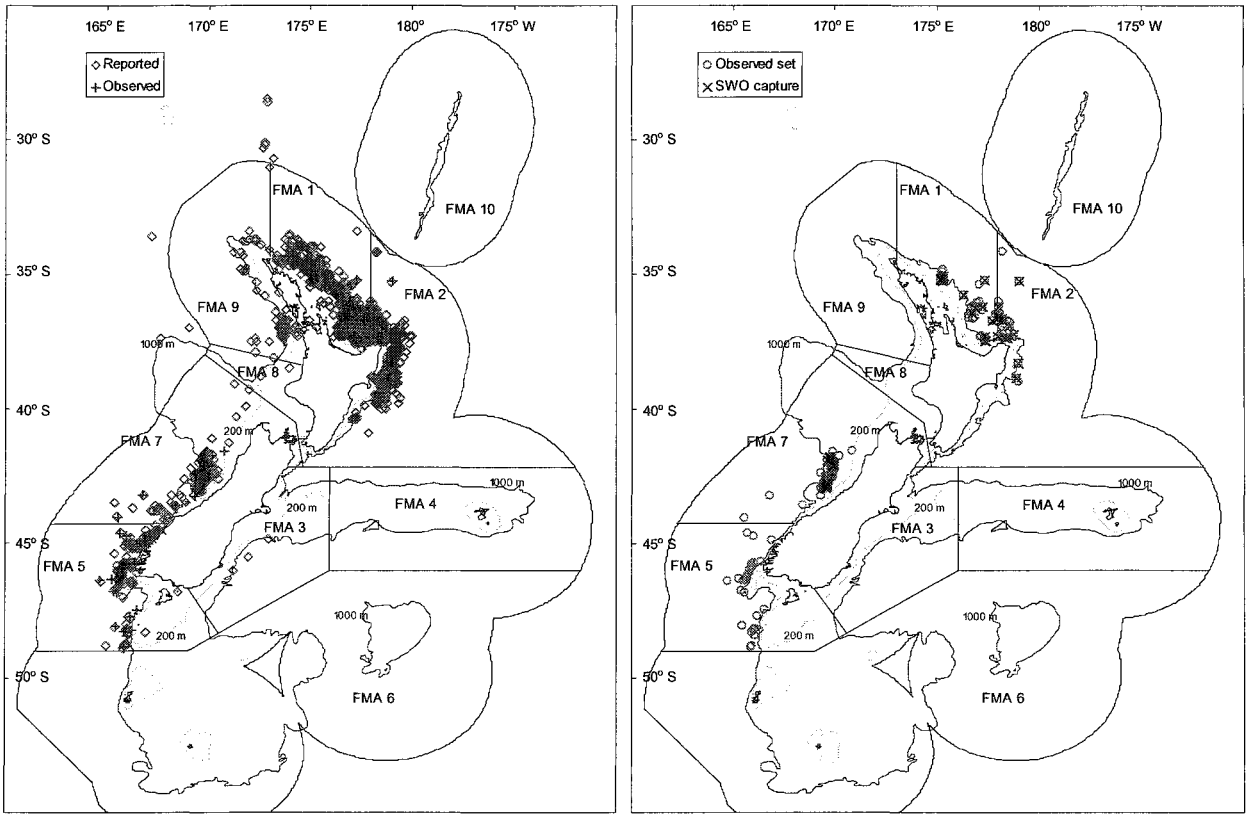
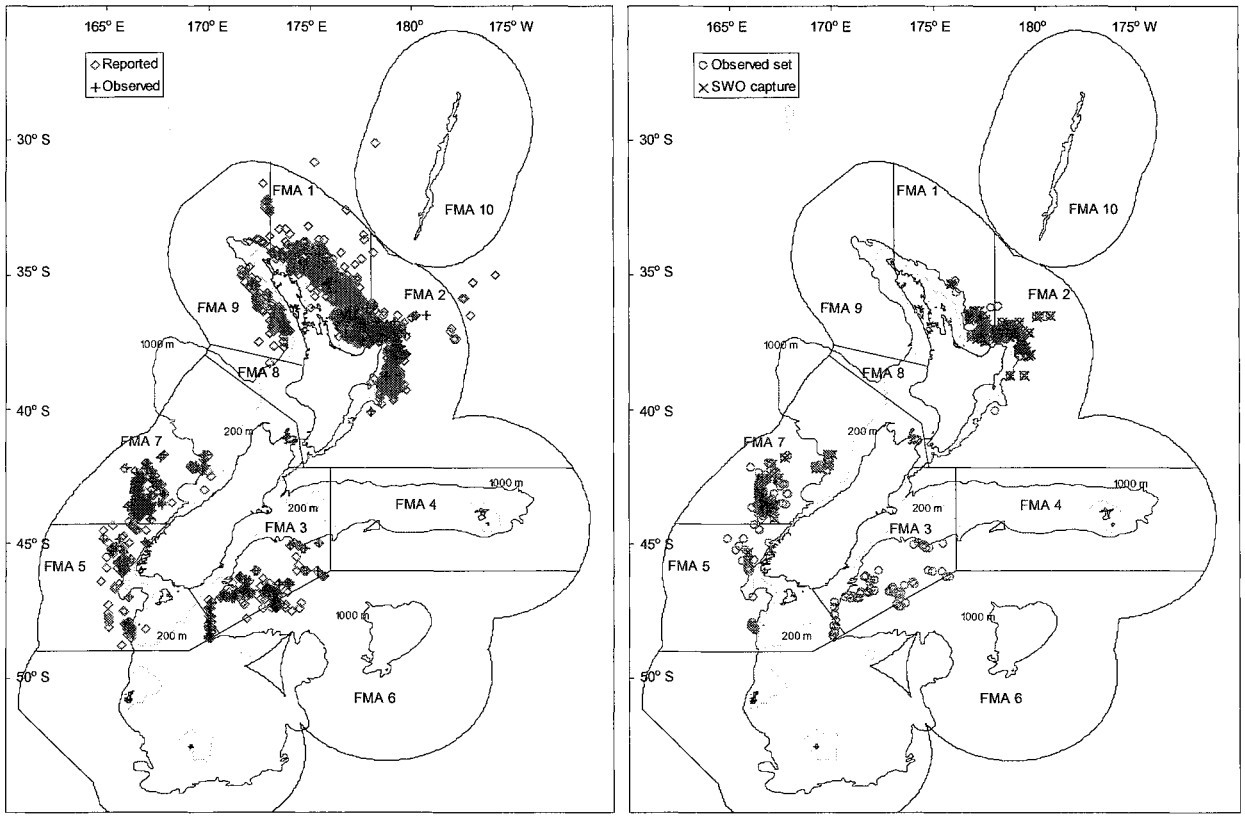


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

1997



1998

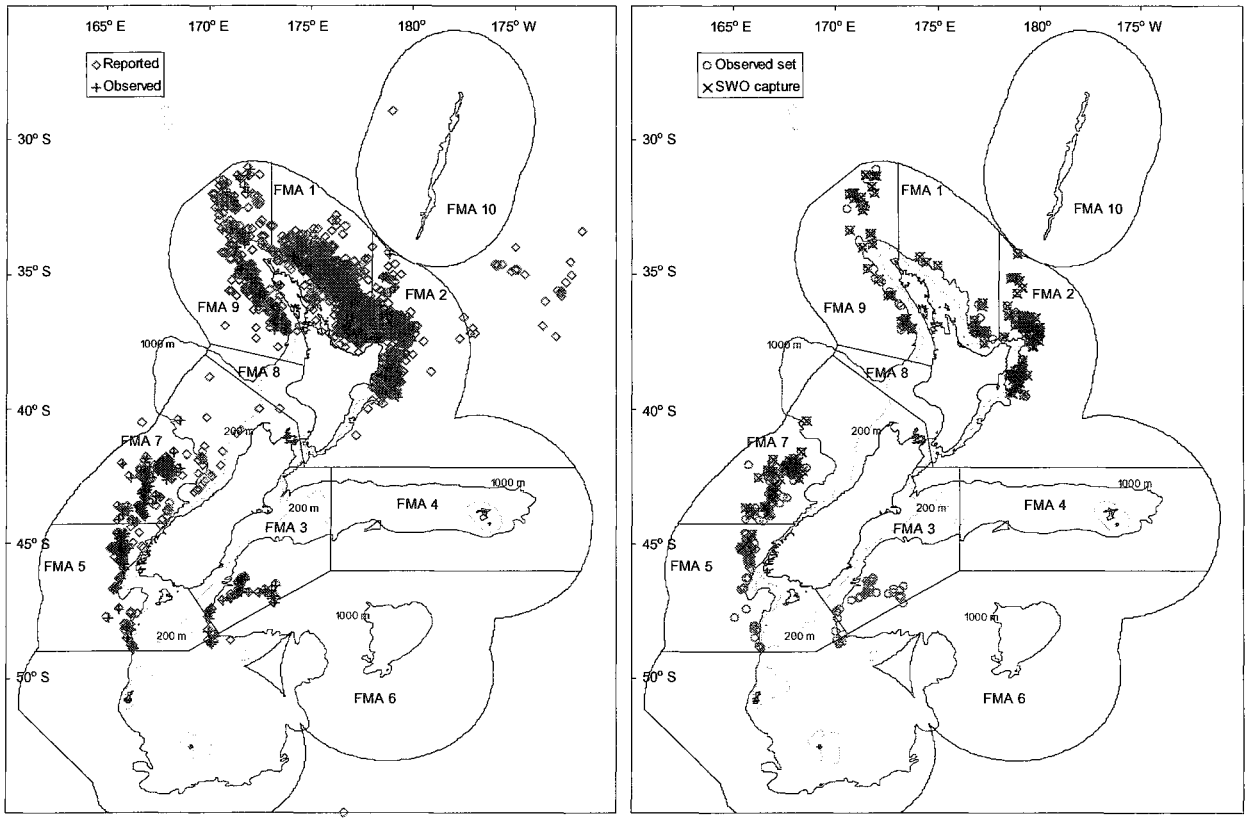
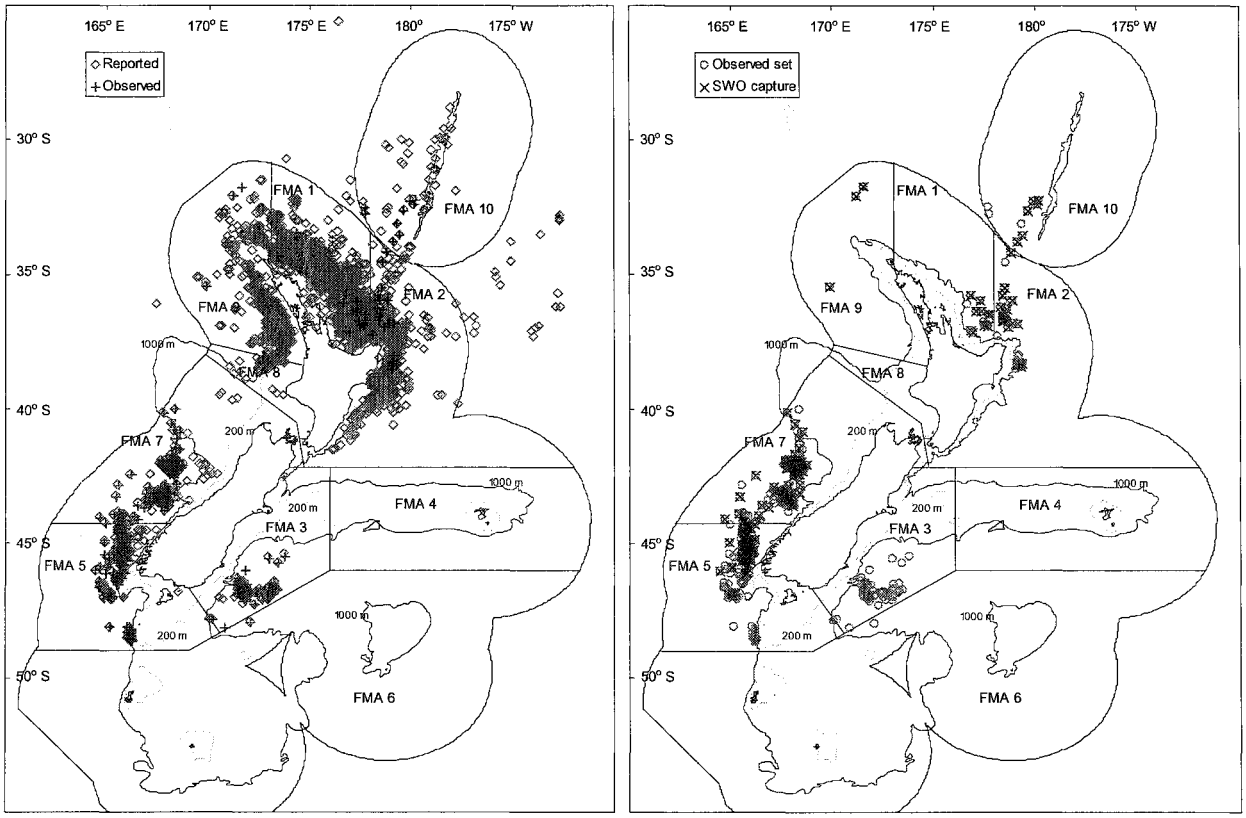


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

1999



2000

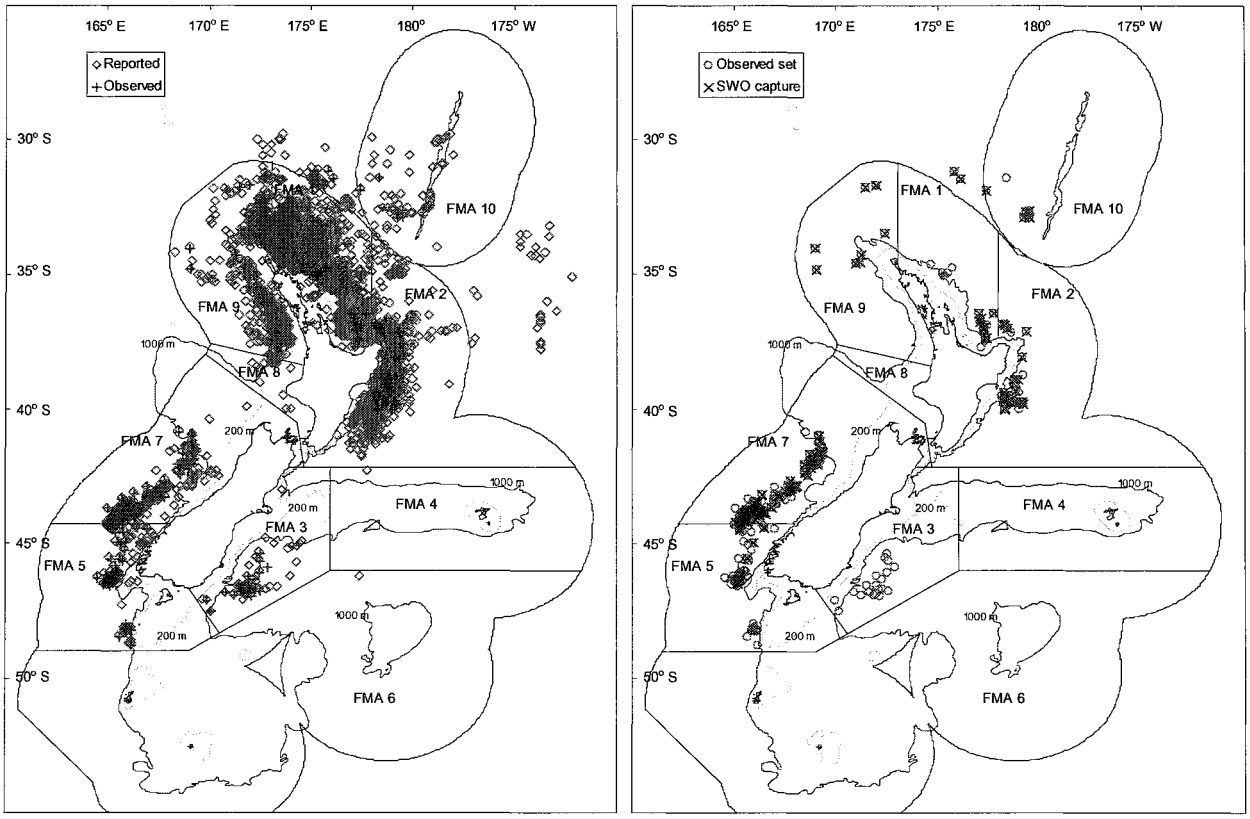
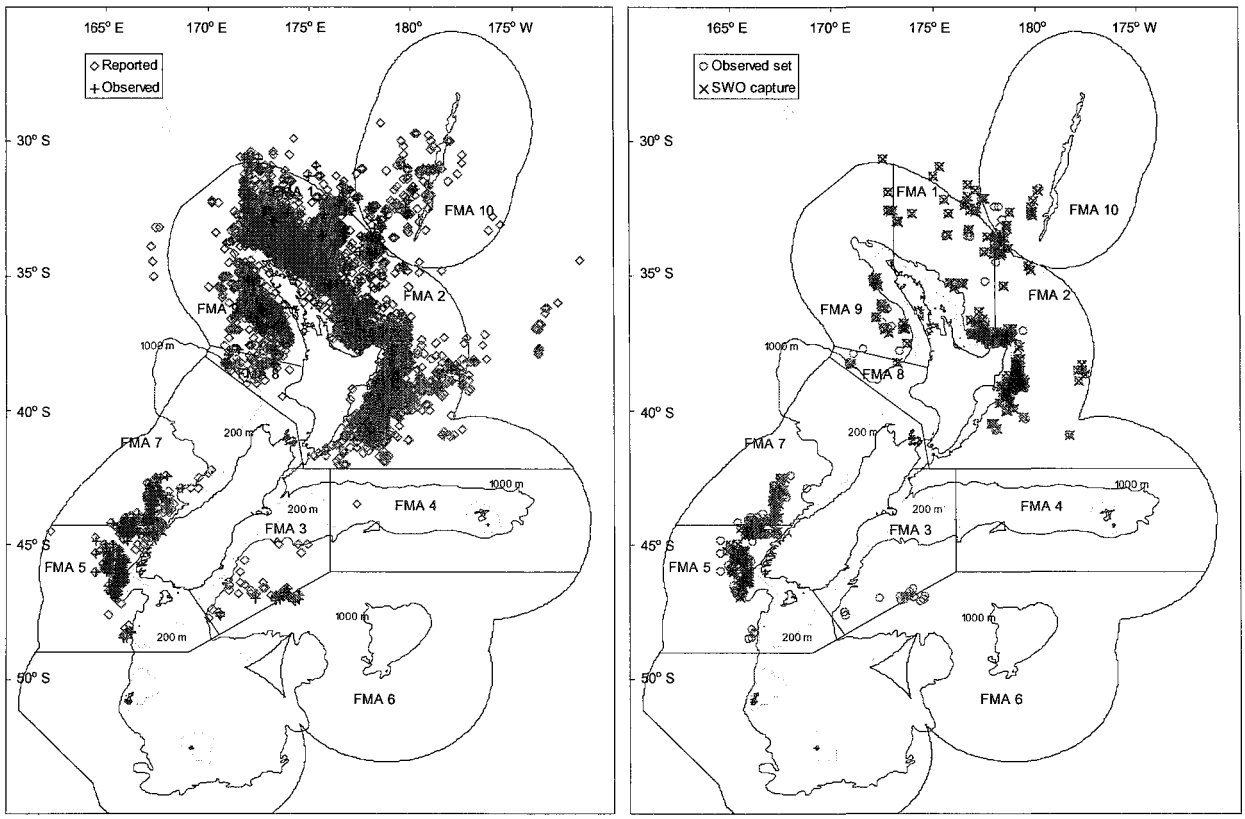


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

2001



2002

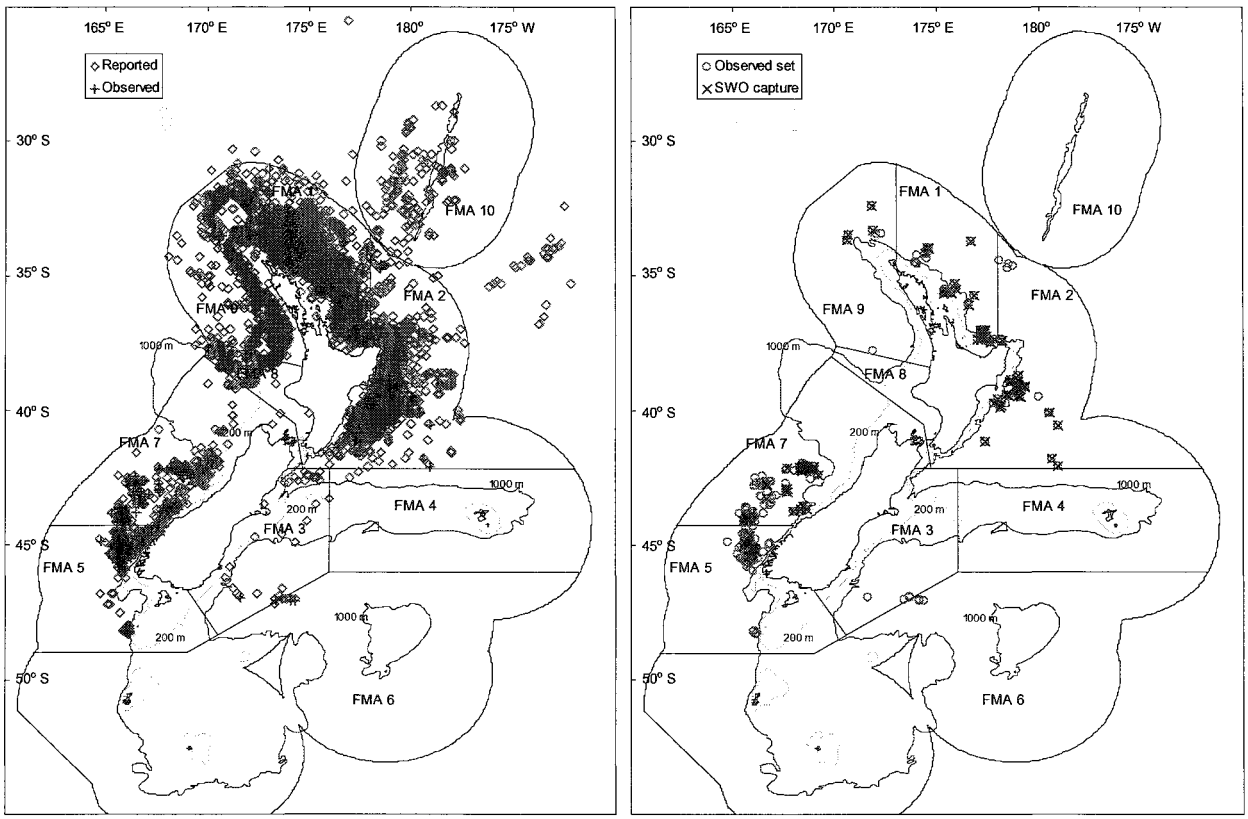
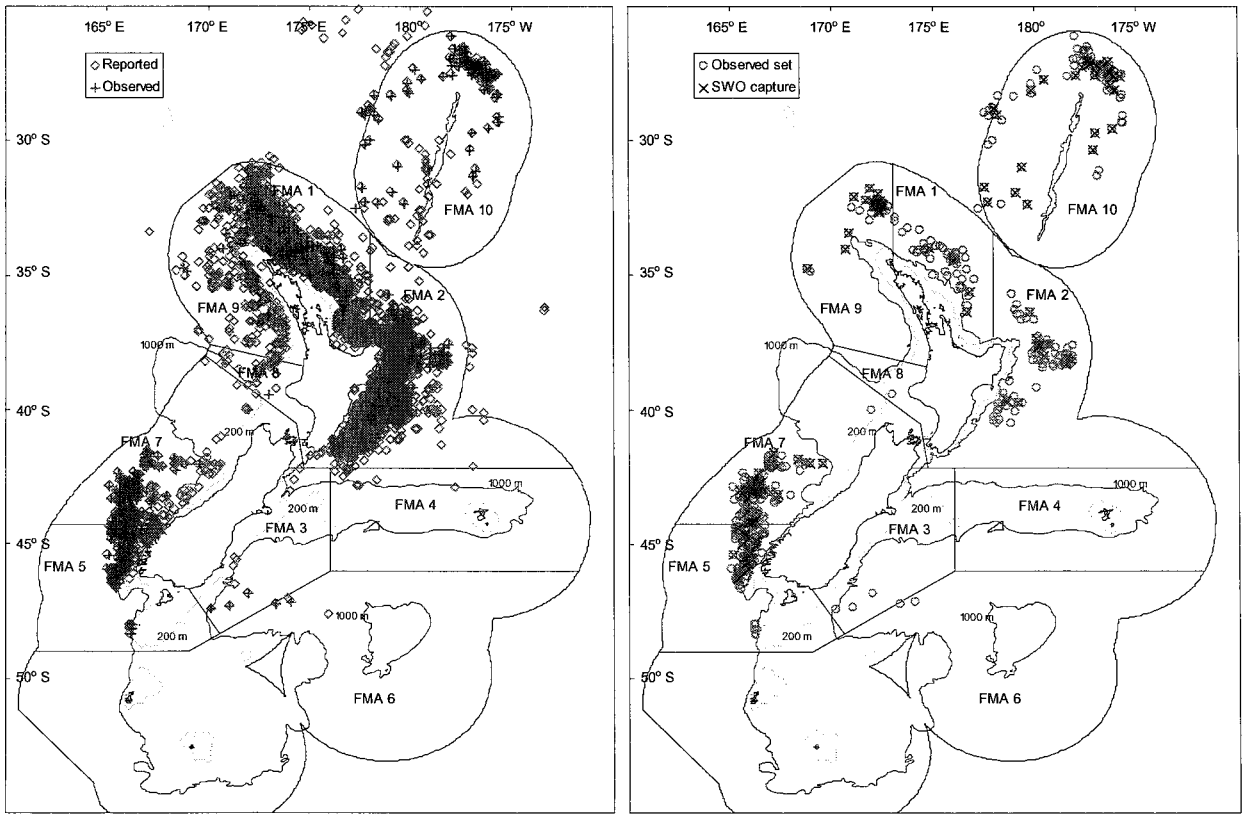


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

2003



2004

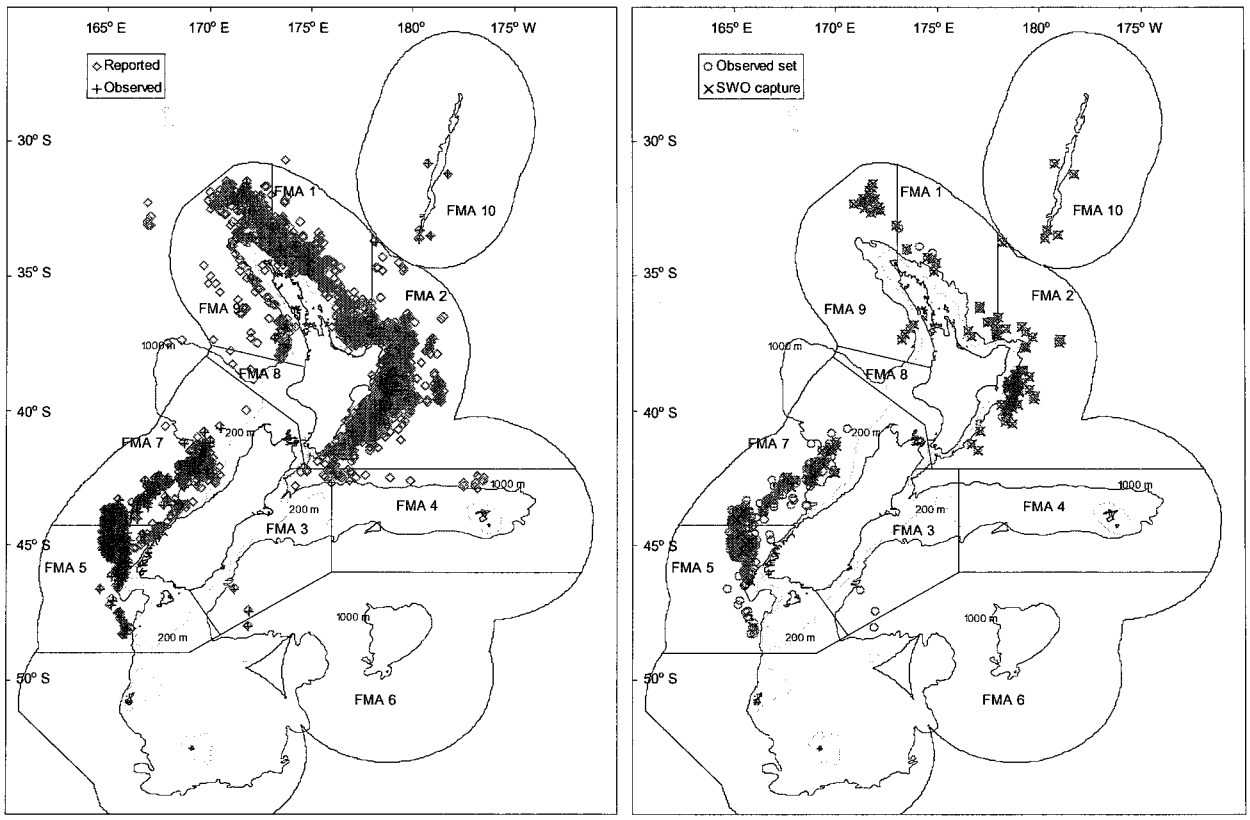


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, by year.

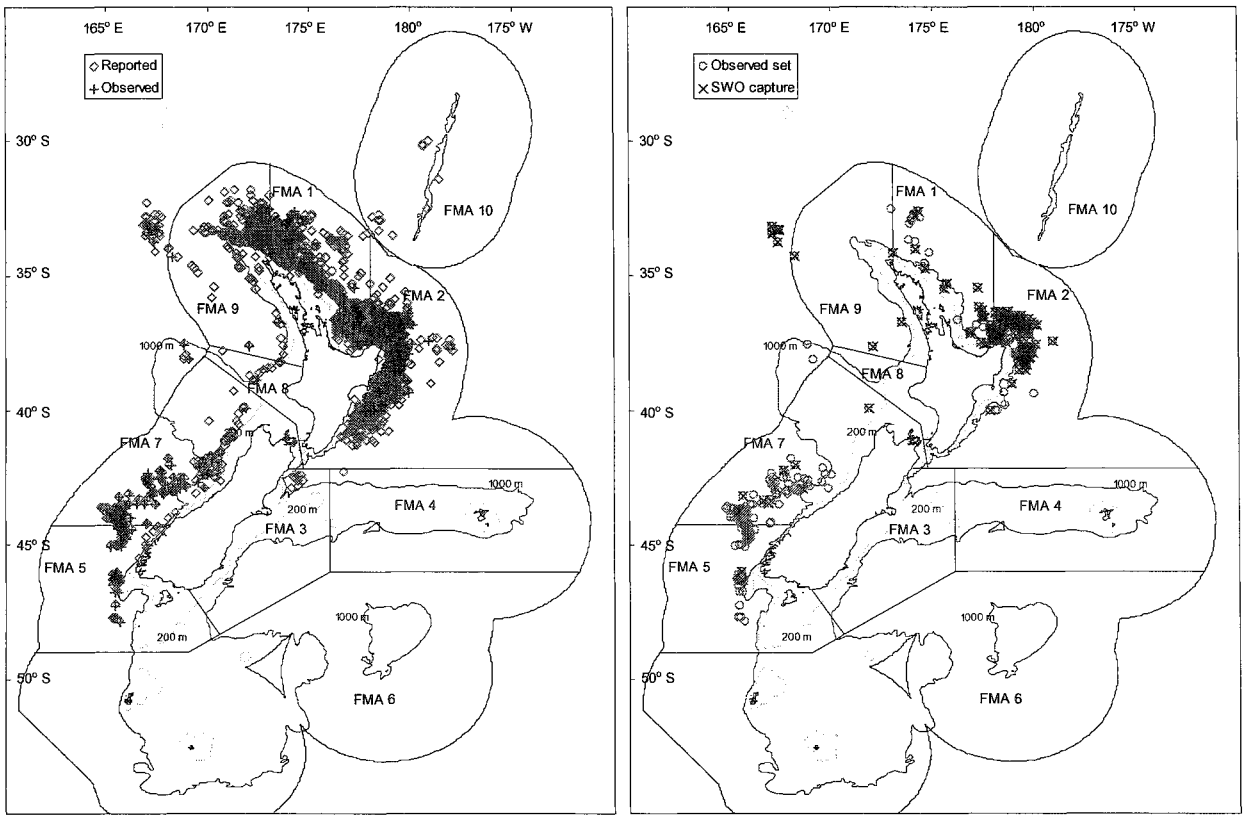


Figure 2 (continued): Reported and observed longline sets, and observed swordfish captures, 2005.

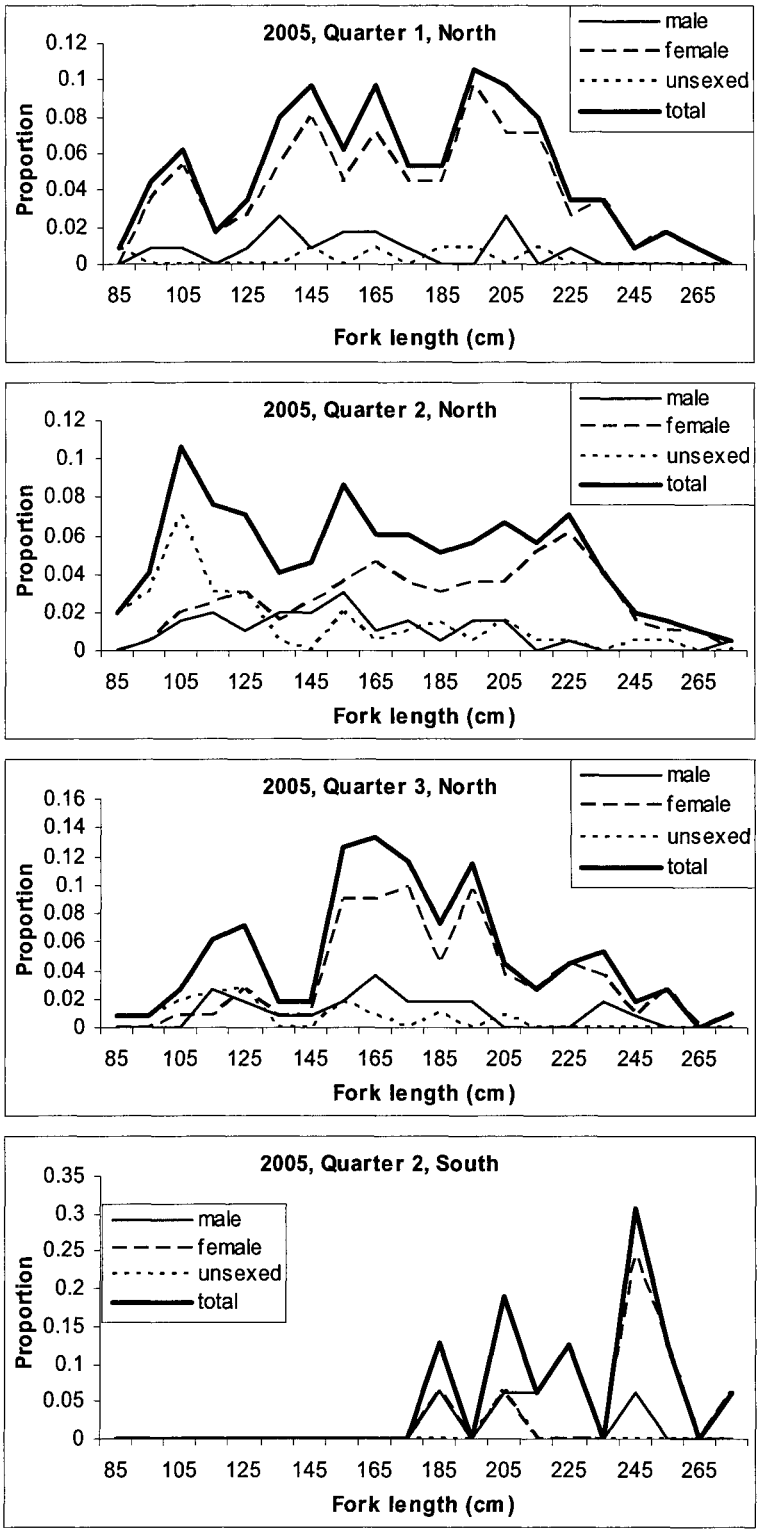


Figure 3: Sex-specific observer proportions at length, by stratum, 2005.

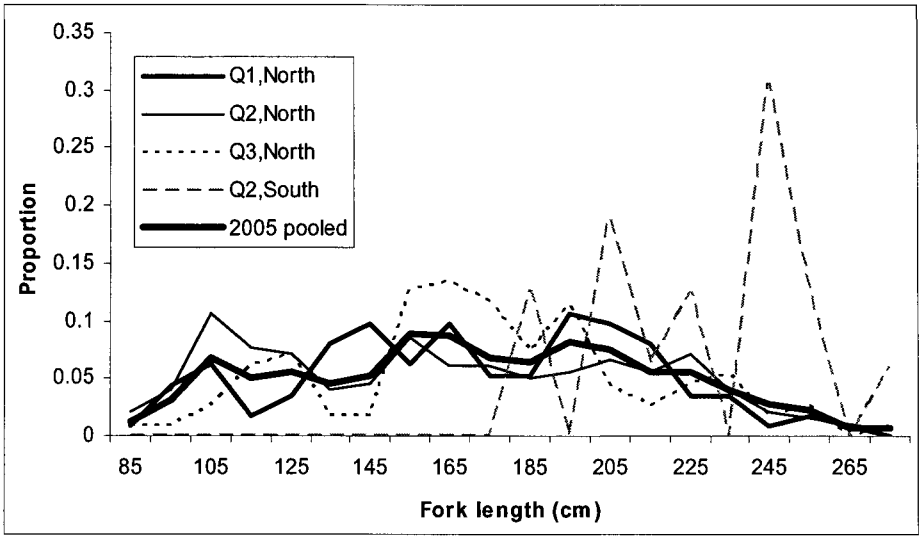


Figure 4: Proportions at length, comparison of length composition by strata, 2005.

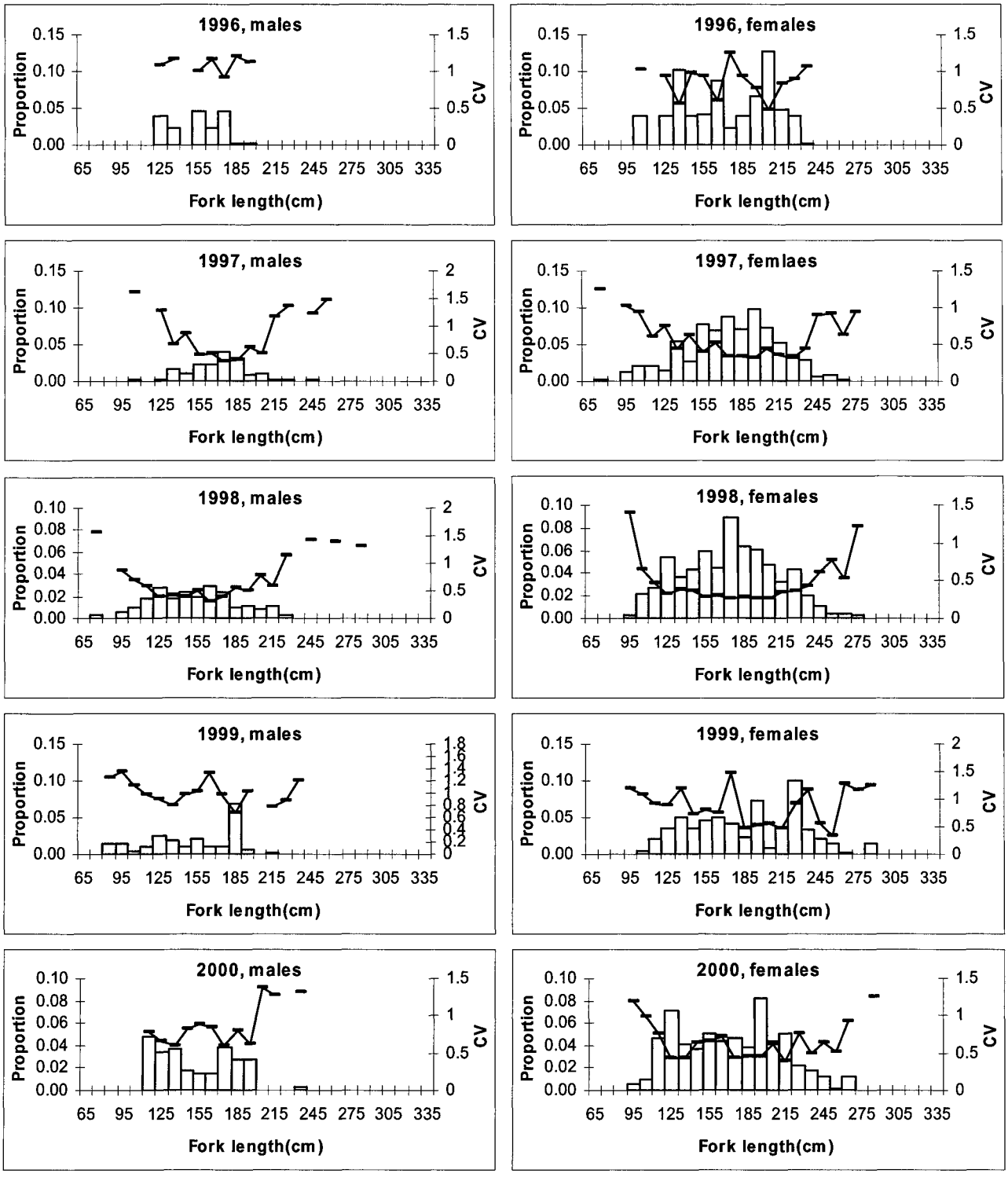


Figure 5: Proportions at length, male and female swordfish, ten year time series (1996 to 2005).

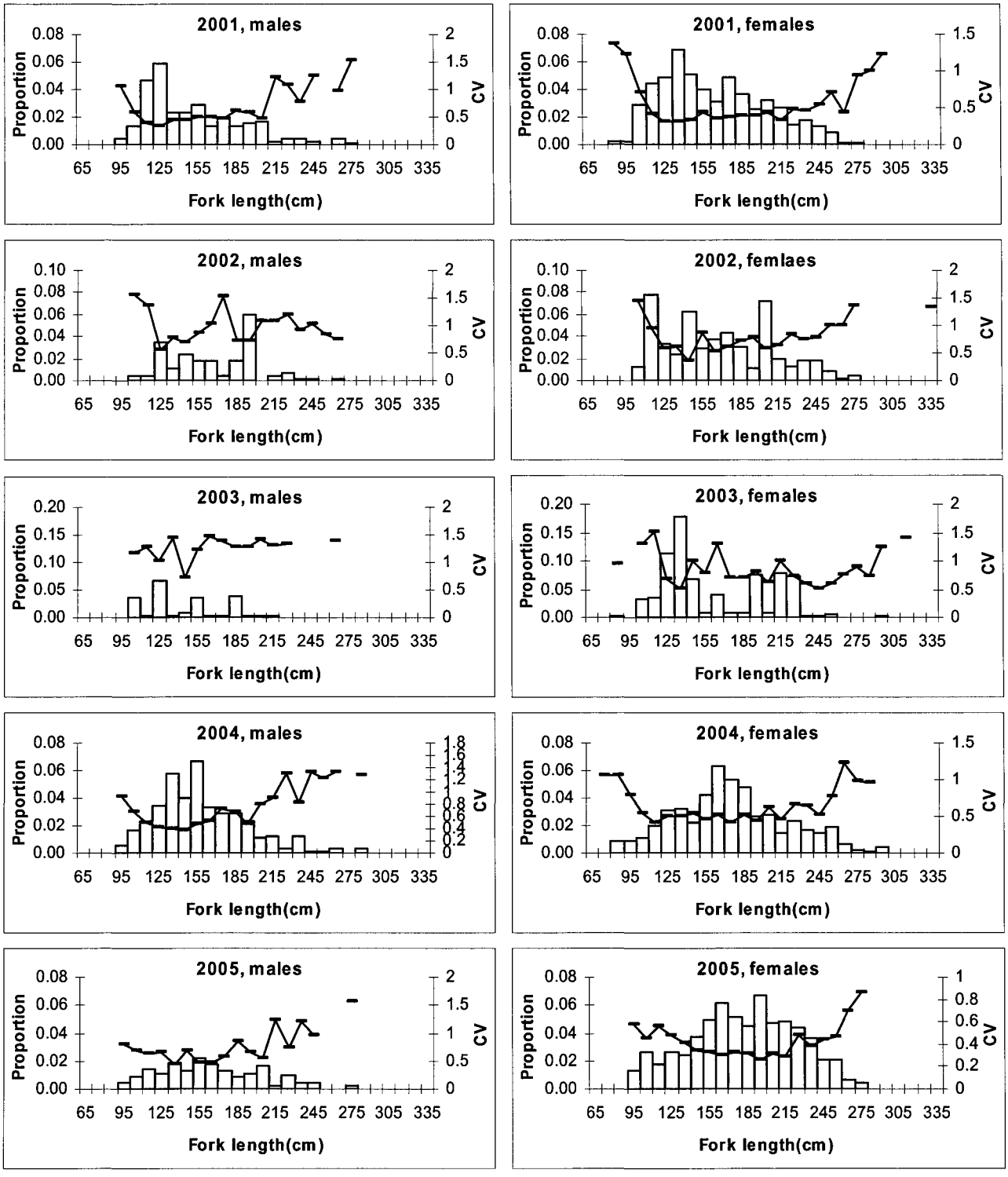


Figure 5 (continued): Proportions at length, male and female swordfish, ten year time series (1996 to 2005).

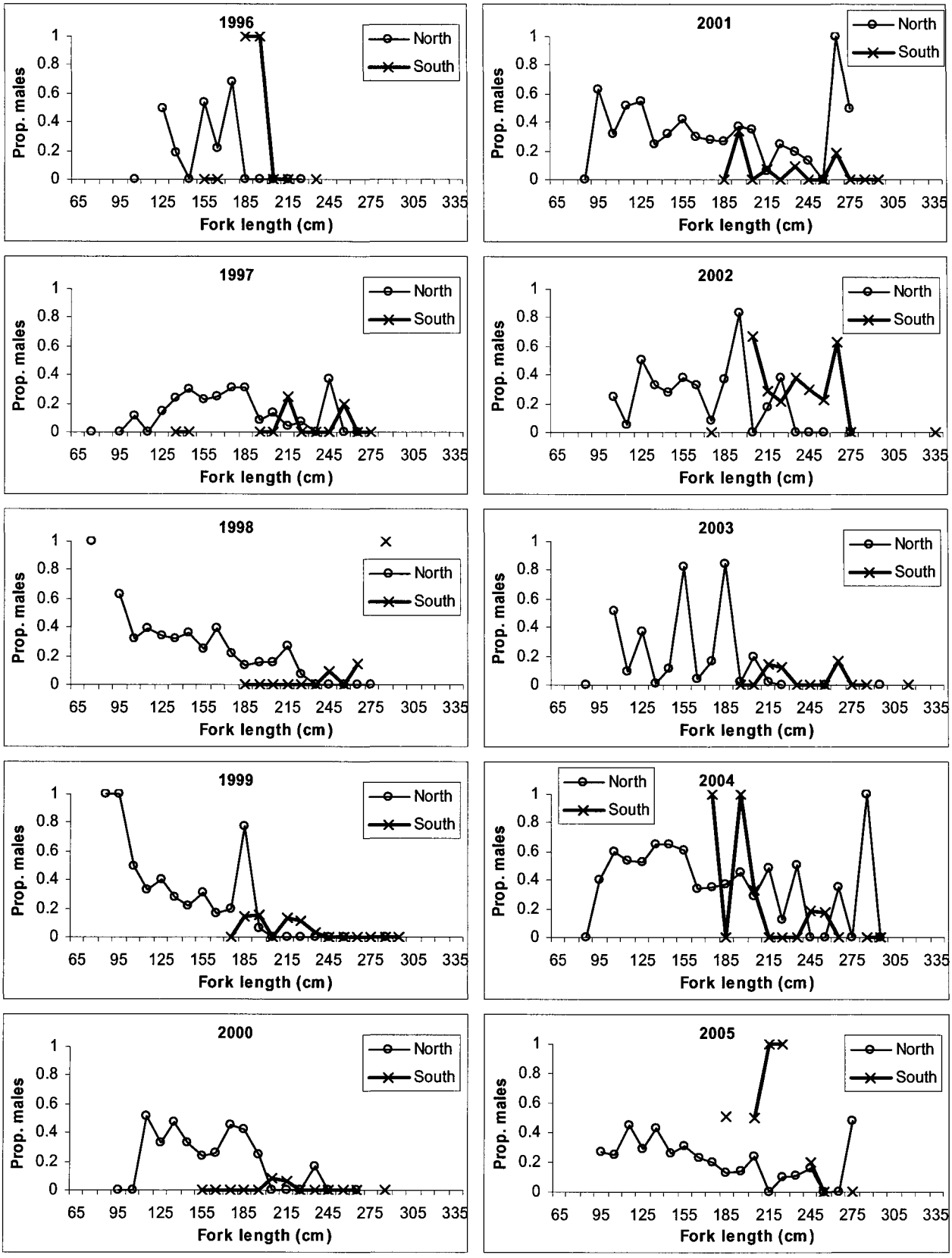
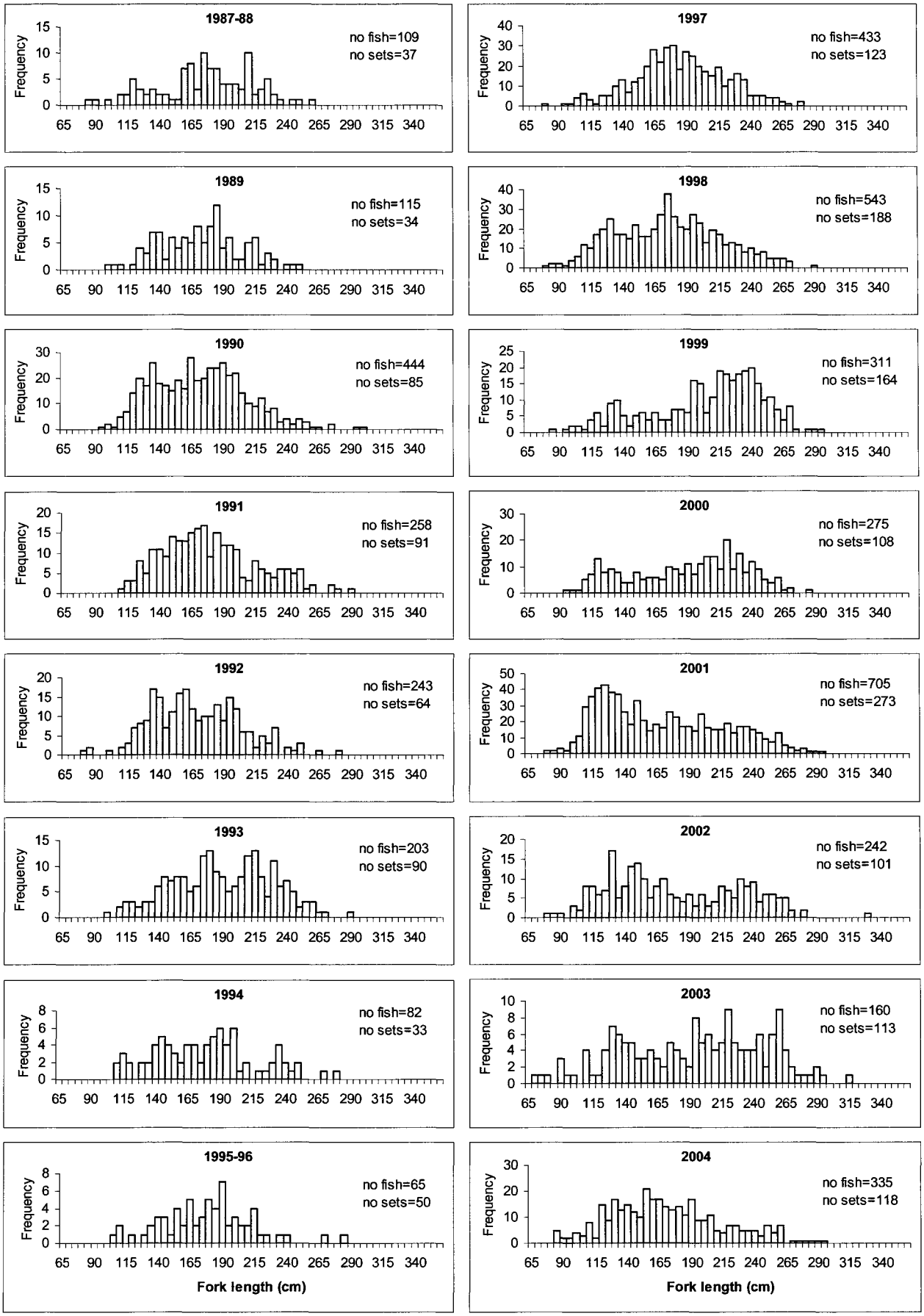


Figure 6: Sex ratio, ten year time series (1996 to 2005) using sex-specific length frequencies estimated from "catch.at.age".

Appendix 1: Swordfish unscaled observer length frequencies, 1987–2004.



Appendix 2: Proportions and length, and c.v.s by year, stratum and sex, 1996–2005.

1996		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	105	0.00	0.07	0.00	0.07	0.00	1.00	0.00	1.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.07	0.07	0.00	0.13	1.04	0.90	0.00	0.67
	135	0.00	0.13	0.00	0.13	0.00	0.64	0.00	0.64
	145	0.00	0.07	0.00	0.07	0.00	0.95	0.00	0.95
	155	0.00	0.07	0.00	0.07	0.00	0.99	0.00	0.99
	165	0.00	0.07	0.00	0.07	0.00	0.99	0.00	0.99
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.07	0.13	0.20	0.00	0.93	0.64	0.49
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.13	0.00	0.13	0.00	0.64	0.00	0.64
	215	0.00	0.07	0.00	0.07	0.00	1.00	0.00	1.00
	225	0.00	0.07	0.00	0.07	0.00	0.94	0.00	0.94
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q2	105	0.00	0.00	0.06	0.06	0.00	0.00	1.14	1.14
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.06	0.06	0.00	0.12	1.13	1.10	0.00	0.89
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.12	0.00	0.00	0.12	0.95	0.00	0.00	0.95
	165	0.06	0.12	0.00	0.18	1.14	0.73	0.00	0.57
	175	0.12	0.06	0.00	0.18	0.91	1.32	0.00	0.58
	185	0.00	0.00	0.06	0.06	0.00	0.00	1.47	1.47
	195	0.00	0.17	0.00	0.17	0.00	0.85	0.00	0.85
	205	0.00	0.12	0.00	0.12	0.00	0.75	0.00	0.75
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South, Q2	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.11	0.00	0.11	0.00	1.23	0.00	1.23
	165	0.00	0.11	0.00	0.11	0.00	1.17	0.00	1.17
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.11	0.00	0.00	0.11	1.17	0.00	0.00	1.17
	195	0.11	0.00	0.00	0.11	1.12	0.00	0.00	1.12
	205	0.00	0.11	0.00	0.11	0.00	1.13	0.00	1.13
	215	0.00	0.33	0.00	0.33	0.00	0.53	0.00	0.53
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.11	0.00	0.11	0.00	1.18	0.00	1.18

1997		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.03	0.00	0.03	0.00	1.02	0.00	1.02
	105	0.00	0.04	0.00	0.04	0.00	0.95	0.00	0.95
	115	0.00	0.01	0.00	0.01	0.00	1.23	0.00	1.23
	125	0.00	0.01	0.00	0.01	0.00	1.20	0.00	1.20
	135	0.01	0.08	0.00	0.09	1.41	0.52	0.00	0.44
	145	0.01	0.04	0.00	0.05	1.18	0.86	0.00	0.82
	155	0.03	0.10	0.00	0.13	0.75	0.56	0.00	0.49
	165	0.01	0.05	0.03	0.09	1.29	1.02	0.78	0.63
	175	0.03	0.09	0.03	0.14	0.73	0.57	1.60	0.55
	185	0.01	0.07	0.00	0.08	1.32	0.52	0.00	0.47
	195	0.00	0.12	0.00	0.12	0.00	0.48	0.00	0.48
	205	0.00	0.09	0.00	0.09	0.00	0.71	0.00	0.71
	215	0.00	0.07	0.00	0.07	0.00	0.52	0.00	0.52
	225	0.00	0.01	0.00	0.01	0.00	1.29	0.00	1.29
	235	0.00	0.03	0.00	0.03	0.00	0.75	0.00	0.75
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.01	0.00	0.01	0.00	1.32	0.00	1.32
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q2	75	0.00	0.01	0.00	0.01	0.00	1.24	0.00	1.24
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.01	0.00	0.01	0.02	1.61	0.00	1.62	1.26
	115	0.00	0.04	0.00	0.04	0.00	0.73	0.00	0.73
	125	0.01	0.02	0.01	0.03	1.27	1.11	1.54	0.81
	135	0.02	0.04	0.00	0.06	0.74	0.77	0.00	0.56
	145	0.01	0.01	0.01	0.03	1.01	0.75	1.29	0.56
	155	0.02	0.05	0.00	0.07	0.73	0.50	0.00	0.38
	165	0.03	0.10	0.01	0.14	0.60	0.46	1.11	0.34
	175	0.06	0.08	0.01	0.15	0.45	0.32	0.99	0.24
	185	0.06	0.08	0.01	0.16	0.41	0.47	0.96	0.35
	195	0.02	0.07	0.00	0.09	0.72	0.48	0.00	0.40
	205	0.02	0.05	0.00	0.08	0.58	0.44	0.00	0.34
	215	0.01	0.03	0.00	0.04	1.36	0.61	0.00	0.53
	225	0.01	0.05	0.01	0.06	1.35	0.46	1.51	0.35
	235	0.00	0.03	0.01	0.04	0.00	0.67	1.28	0.52
	245	0.01	0.01	0.00	0.01	1.22	1.75	0.00	1.01
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1997 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.01	0.00	0.01	0.00	0.97	0.00	0.97
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.01	0.00	0.01	0.00	0.70	0.00	0.70
	135	0.01	0.01	0.01	0.03	0.70	0.73	1.13	0.44
	145	0.00	0.03	0.01	0.04	0.00	0.43	1.01	0.40
	155	0.03	0.05	0.01	0.09	0.48	0.35	0.96	0.26
	165	0.05	0.05	0.01	0.11	0.37	0.38	0.73	0.24
	175	0.02	0.13	0.01	0.16	0.57	0.19	0.69	0.17
	185	0.01	0.06	0.00	0.07	0.68	0.29	0.00	0.26
	195	0.01	0.13	0.00	0.14	0.69	0.21	0.00	0.20
	205	0.01	0.08	0.00	0.09	0.72	0.27	0.00	0.25
	215	0.00	0.09	0.00	0.09	0.00	0.25	0.00	0.25
	225	0.00	0.09	0.00	0.09	0.00	0.26	0.00	0.26
	235	0.00	0.03	0.00	0.03	0.00	0.50	0.00	0.50
	245	0.00	0.02	0.00	0.02	0.00	0.55	0.00	0.55
	255	0.00	0.01	0.01	0.02	0.00	0.68	1.01	0.56
	265	0.00	0.01	0.00	0.01	0.00	1.04	0.00	1.04
South, Q2	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.03	0.00	0.03	0.00	1.29	0.00	1.29
	145	0.00	0.03	0.00	0.03	0.00	1.17	0.00	1.17
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	195	0.00	0.03	0.00	0.03	0.00	1.38	0.00	1.38
	205	0.00	0.03	0.00	0.03	0.00	1.34	0.00	1.34
	215	0.03	0.08	0.00	0.11	1.36	0.72	0.00	0.72
	225	0.00	0.17	0.00	0.17	0.00	0.53	0.00	0.53
	235	0.00	0.19	0.03	0.22	0.00	0.45	1.31	0.41
	245	0.00	0.08	0.00	0.08	0.00	0.67	0.00	0.67
	255	0.03	0.11	0.00	0.14	1.52	0.57	0.00	0.46
	265	0.00	0.11	0.00	0.11	0.00	0.82	0.00	0.82
	275	0.00	0.06	0.00	0.06	0.00	0.98	0.00	0.98

1998		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.01	0.01	0.00	0.00	1.42	1.42
	95	0.00	0.01	0.00	0.01	0.00	1.37	0.00	1.37
	105	0.02	0.05	0.00	0.07	1.03	0.75	0.00	0.73
	115	0.04	0.04	0.06	0.15	0.72	0.59	0.45	0.34
	125	0.02	0.07	0.00	0.09	1.00	0.49	0.00	0.42
	135	0.01	0.04	0.00	0.04	1.34	0.92	0.00	0.70
	145	0.04	0.06	0.01	0.11	0.58	0.53	1.22	0.40
	155	0.03	0.04	0.01	0.08	0.91	0.66	1.43	0.39
	165	0.03	0.03	0.02	0.07	0.76	0.81	0.86	0.53
	175	0.02	0.10	0.00	0.12	1.09	0.54	0.00	0.43
	185	0.00	0.07	0.01	0.08	0.00	0.51	1.56	0.57
	195	0.00	0.05	0.00	0.05	0.00	0.65	0.00	0.65
	205	0.00	0.04	0.00	0.04	0.00	0.58	0.00	0.58
	215	0.02	0.02	0.00	0.04	0.84	0.89	0.00	0.60
	225	0.00	0.04	0.00	0.04	0.00	0.53	0.00	0.53
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.01	0.00	0.01	0.00	1.52	0.00	1.52
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q2	75	0.01	0.00	0.00	0.01	1.53	0.00	0.00	1.53
	85	0.00	0.00	0.01	0.01	0.00	0.00	1.32	1.32
	95	0.01	0.00	0.01	0.02	0.88	0.00	1.31	0.79
	105	0.01	0.01	0.01	0.02	1.45	1.23	1.68	0.88
	115	0.01	0.01	0.01	0.03	1.46	1.00	1.02	0.62
	125	0.03	0.03	0.00	0.06	0.67	0.77	0.00	0.50
	135	0.02	0.05	0.01	0.07	0.75	0.51	1.56	0.39
	145	0.01	0.05	0.00	0.06	1.10	0.63	0.00	0.62
	155	0.02	0.05	0.00	0.07	0.75	0.45	0.00	0.34
	165	0.03	0.04	0.01	0.07	0.64	0.49	1.34	0.43
	175	0.02	0.06	0.03	0.11	0.76	0.44	0.64	0.27
	185	0.01	0.06	0.01	0.08	1.49	0.48	0.90	0.44
	195	0.02	0.05	0.01	0.08	0.69	0.39	1.43	0.40
	205	0.01	0.07	0.00	0.08	1.29	0.41	0.00	0.44
	215	0.01	0.06	0.02	0.09	1.02	0.47	0.85	0.43
	225	0.01	0.07	0.00	0.07	1.50	0.58	0.00	0.55
	235	0.00	0.04	0.00	0.04	0.00	0.58	0.00	0.58
	245	0.00	0.01	0.00	0.01	0.00	1.08	0.00	1.08
	255	0.00	0.01	0.00	0.01	0.00	1.34	0.00	1.34
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.01	0.00	0.01	0.00	1.25	0.00	1.25
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1998 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23
	95	0.00	0.00	0.00	0.00	0.00	0.00	1.32	1.32
	105	0.01	0.01	0.01	0.03	0.76	1.21	0.90	0.57
	115	0.00	0.00	0.00	0.01	1.34	0.00	1.50	1.16
	125	0.05	0.03	0.01	0.10	0.31	0.40	0.73	0.22
	135	0.04	0.04	0.01	0.09	0.47	0.43	0.87	0.28
	145	0.04	0.03	0.00	0.07	0.39	0.53	1.26	0.25
	155	0.02	0.02	0.01	0.05	0.48	0.61	1.18	0.44
	165	0.05	0.07	0.00	0.13	0.31	0.32	1.48	0.22
	175	0.06	0.06	0.01	0.13	0.40	0.35	0.98	0.20
	185	0.04	0.06	0.01	0.10	0.51	0.38	1.07	0.21
	195	0.02	0.08	0.02	0.12	0.67	0.24	0.63	0.25
	205	0.02	0.06	0.00	0.08	0.77	0.43	1.24	0.36
	215	0.00	0.02	0.00	0.03	1.49	0.61	1.23	0.57
	225	0.00	0.01	0.00	0.02	1.32	1.09	1.26	0.95
	235	0.00	0.01	0.00	0.02	0.00	0.78	1.26	0.57
	245	0.00	0.00	0.00	0.00	0.00	1.25	0.00	1.25
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.01	0.00	0.01	0.00	0.84	0.00	0.84
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q4	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.08	0.00	0.08	0.00	0.99	0.00	0.99
	125	0.00	0.17	0.00	0.17	0.00	0.67	0.00	0.67
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.25	0.00	0.25	0.00	0.51	0.00	0.51
	165	0.00	0.08	0.00	0.08	0.00	0.92	0.00	0.92
	175	0.00	0.25	0.00	0.25	0.00	0.47	0.00	0.47
	185	0.00	0.08	0.00	0.08	0.00	0.93	0.00	0.93
	195	0.00	0.08	0.00	0.08	0.00	1.00	0.00	1.00
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1998 continued

		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q2	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.02	0.00	0.02	0.00	1.24	0.00	1.24
	195	0.00	0.06	0.00	0.06	0.00	0.78	0.00	0.78
	205	0.00	0.04	0.00	0.04	0.00	1.04	0.00	1.04
	215	0.00	0.02	0.00	0.02	0.00	1.22	0.00	1.22
	225	0.00	0.15	0.02	0.17	0.00	0.60	1.22	0.60
	235	0.00	0.19	0.00	0.19	0.00	0.32	0.00	0.32
	245	0.02	0.19	0.00	0.21	1.44	0.49	0.00	0.47
	255	0.00	0.13	0.00	0.13	0.00	0.57	0.00	0.57
	265	0.02	0.11	0.02	0.15	1.43	0.71	1.25	0.57
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.02	0.00	0.00	0.02	1.30	0.00	0.00	1.30

1999

		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	85	0.03	0.00	0.00	0.03	1.23	0.00	0.00	1.23
	95	0.03	0.00	0.00	0.03	1.32	0.00	0.00	1.32
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.03	0.00	0.03	0.00	1.28	0.00	1.28
	125	0.00	0.07	0.03	0.10	0.00	1.03	1.72	1.02
	135	0.00	0.10	0.03	0.13	0.00	0.93	1.54	0.68
	145	0.00	0.03	0.00	0.03	0.00	1.58	0.00	1.58
	155	0.03	0.07	0.03	0.13	1.27	1.07	1.23	0.87
	165	0.00	0.10	0.00	0.10	0.00	0.85	0.00	0.85
	175	0.00	0.07	0.00	0.07	0.00	1.02	0.00	1.02
	185	0.03	0.03	0.00	0.07	1.26	1.27	0.00	1.03
	195	0.00	0.07	0.00	0.07	0.00	1.06	0.00	1.06
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.03	0.00	0.03	0.00	1.16	0.00	1.16
	225	0.00	0.07	0.00	0.07	0.00	1.02	0.00	1.02
	235	0.00	0.03	0.00	0.03	0.00	1.48	0.00	1.48
	245	0.00	0.03	0.00	0.03	0.00	1.49	0.00	1.49
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.03	0.00	0.03	0.00	1.23	0.00	1.23
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1999 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.02	0.02	0.00	0.00	0.92	0.92
	105	0.01	0.01	0.01	0.04	1.11	1.16	1.31	0.87
	115	0.02	0.01	0.06	0.10	0.94	1.75	0.77	0.46
	125	0.06	0.01	0.04	0.11	0.84	1.18	0.94	0.62
	135	0.05	0.01	0.04	0.10	0.78	1.11	0.86	0.70
	145	0.02	0.05	0.04	0.11	0.94	0.79	0.86	0.69
	155	0.01	0.04	0.02	0.07	1.24	0.88	0.93	0.52
	165	0.02	0.01	0.04	0.07	1.29	1.20	0.84	0.58
	175	0.02	0.02	0.00	0.05	0.96	1.20	0.00	0.72
	185	0.01	0.01	0.01	0.04	1.89	2.50	2.05	1.62
	195	0.01	0.10	0.02	0.14	1.16	0.50	0.90	0.48
	205	0.00	0.01	0.00	0.01	0.00	1.07	0.00	1.07
	215	0.00	0.04	0.00	0.04	0.00	0.82	0.00	0.82
	225	0.00	0.04	0.00	0.04	0.00	0.82	0.00	0.82
	235	0.00	0.02	0.00	0.02	0.00	1.84	0.00	1.84
	245	0.00	0.00	0.01	0.01	0.00	0.00	1.19	1.19
	255	0.00	0.02	0.00	0.02	0.00	0.87	0.00	0.87
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q4	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.50	0.00	0.00	0.50	0.68	0.00	0.00	0.68
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.50	0.00	0.50	0.00	0.71	0.00	0.71
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1999 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q2	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.02	0.00	0.02	0.00	0.80	0.00	0.80
	185	0.00	0.03	0.00	0.03	0.00	0.52	0.00	0.52
	195	0.01	0.07	0.00	0.07	1.30	0.39	0.00	0.35
	205	0.00	0.09	0.01	0.09	0.00	0.31	1.26	0.29
	215	0.01	0.15	0.01	0.17	0.93	0.28	1.07	0.22
	225	0.01	0.13	0.00	0.14	1.02	0.28	0.00	0.31
	235	0.00	0.16	0.01	0.17	0.00	0.23	1.36	0.23
	245	0.00	0.10	0.01	0.11	0.00	0.30	1.35	0.30
	255	0.00	0.10	0.00	0.10	0.00	0.32	0.00	0.32
	265	0.00	0.07	0.01	0.07	0.00	0.29	1.39	0.27
	275	0.00	0.01	0.00	0.01	0.00	1.26	0.00	1.26
	285	0.00	0.01	0.00	0.01	0.00	1.36	0.00	1.36
	295	0.00	0.01	0.00	0.01	0.00	1.26	0.00	1.26
South, Q3	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.04	0.04	0.00	0.09	1.22	1.30	0.00	0.97
	195	0.04	0.00	0.00	0.04	1.20	0.00	0.00	1.20
	205	0.00	0.04	0.04	0.09	0.00	1.15	1.26	0.97
	215	0.09	0.04	0.04	0.17	1.07	1.29	1.18	0.63
	225	0.04	0.09	0.00	0.13	1.38	0.79	0.00	0.63
	235	0.04	0.26	0.00	0.31	1.17	0.44	0.00	0.37
	245	0.00	0.18	0.00	0.18	0.00	0.65	0.00	0.65
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2000		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	95	0.00	0.00	0.01	0.01	0.00	0.00	1.60	1.60
	105	0.00	0.01	0.00	0.01	0.00	1.50	0.00	1.50
	115	0.01	0.01	0.05	0.07	1.39	1.38	0.83	0.59
	125	0.04	0.07	0.00	0.11	0.66	0.62	0.00	0.51
	135	0.01	0.06	0.00	0.07	1.53	0.52	0.00	0.48
	145	0.01	0.01	0.02	0.05	1.47	1.30	1.06	0.61
	155	0.02	0.02	0.00	0.05	1.08	0.87	0.00	0.61
	165	0.00	0.04	0.00	0.04	0.00	0.75	0.00	0.75
	175	0.02	0.02	0.00	0.05	0.99	0.93	0.00	0.73
	185	0.01	0.08	0.00	0.10	1.42	0.48	0.00	0.48
	195	0.02	0.07	0.00	0.10	0.89	0.52	0.00	0.37
	205	0.00	0.05	0.04	0.08	0.00	0.61	0.78	0.48
	215	0.00	0.14	0.00	0.14	0.00	0.43	0.00	0.43
	225	0.00	0.01	0.00	0.01	0.00	1.39	0.00	1.39
	235	0.01	0.06	0.00	0.07	1.33	0.60	0.00	0.59
	245	0.00	0.04	0.00	0.04	0.00	0.80	0.00	0.80
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.01	0.00	0.01	0.00	1.25	0.00	1.25
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q2	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.02	0.02	0.00	0.00	1.35	1.35
	115	0.05	0.07	0.02	0.14	0.96	0.75	1.65	0.72
	125	0.04	0.05	0.00	0.09	0.76	0.77	0.00	0.62
	135	0.05	0.04	0.00	0.09	0.75	0.78	0.00	0.58
	145	0.02	0.05	0.00	0.07	1.20	0.75	0.00	0.61
	155	0.02	0.07	0.02	0.11	1.22	0.77	1.77	0.72
	165	0.02	0.05	0.02	0.09	1.19	1.04	1.23	0.57
	175	0.02	0.05	0.02	0.09	1.24	0.65	1.23	0.63
	185	0.04	0.02	0.00	0.05	0.99	1.29	0.00	0.92
	195	0.02	0.11	0.02	0.14	1.24	0.60	1.33	0.52
	205	0.00	0.05	0.00	0.05	0.00	0.85	0.00	0.85
	215	0.00	0.02	0.00	0.02	0.00	1.41	0.00	1.41
	225	0.00	0.02	0.00	0.02	0.00	1.29	0.00	1.29
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.02	0.00	0.02	0.00	1.19	0.00	1.19
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2000 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	95	0.00	0.03	0.00	0.03	0.00	1.18	0.00	1.18
	105	0.00	0.03	0.03	0.06	0.00	1.26	1.17	0.95
	115	0.09	0.03	0.03	0.16	0.87	1.17	1.25	0.79
	125	0.03	0.13	0.00	0.16	1.61	0.72	0.00	0.81
	135	0.03	0.03	0.00	0.06	1.16	1.19	0.00	0.95
	145	0.03	0.03	0.00	0.06	1.26	1.25	0.00	1.00
	155	0.00	0.03	0.00	0.03	0.00	1.16	0.00	1.16
	165	0.03	0.03	0.00	0.06	1.18	1.75	0.00	1.24
	175	0.13	0.06	0.00	0.19	0.80	0.99	0.00	0.48
	185	0.03	0.03	0.00	0.06	1.77	1.21	0.00	1.19
	195	0.06	0.03	0.00	0.09	0.96	1.21	0.00	0.87
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.03	0.00	0.03	0.00	1.67	0.00	1.67
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South, Q2	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.01	0.00	0.01	0.00	1.27	0.00	1.27
	165	0.00	0.01	0.00	0.01	0.00	1.33	0.00	1.33
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.02	0.00	0.02	0.00	0.80	0.00	0.80
	195	0.00	0.03	0.00	0.03	0.00	0.65	0.00	0.65
	205	0.01	0.12	0.00	0.13	1.35	0.39	0.00	0.35
	215	0.01	0.15	0.02	0.18	1.26	0.43	1.09	0.40
	225	0.00	0.18	0.02	0.20	0.00	0.35	1.16	0.37
	235	0.00	0.12	0.01	0.13	0.00	0.38	1.30	0.34
	245	0.00	0.12	0.01	0.13	0.00	0.28	1.36	0.29
	255	0.00	0.08	0.02	0.10	0.00	0.51	1.09	0.50
	265	0.00	0.02	0.01	0.03	0.00	0.85	1.39	0.74
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.01	0.00	0.01	0.00	1.23	0.00	1.23

2000 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q3	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.20	0.20	0.00	0.00	1.11	1.11
	175	0.00	0.21	0.00	0.21	0.00	1.04	0.00	1.04
	185	0.00	0.21	0.00	0.21	0.00	1.01	0.00	1.01
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.20	0.00	0.20	0.00	1.10	0.00	1.10
	235	0.00	0.00	0.20	0.20	0.00	0.00	1.04	1.04
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2001		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.37
	95	0.00	0.00	0.01	0.01	0.00	0.00	0.92	0.92
	105	0.02	0.02	0.02	0.06	0.54	0.49	0.56	0.37
	115	0.05	0.07	0.01	0.13	0.39	0.30	0.71	0.19
	125	0.03	0.10	0.02	0.16	0.40	0.32	0.67	0.23
	135	0.03	0.07	0.00	0.11	0.43	0.34	0.00	0.24
	145	0.02	0.04	0.01	0.06	0.64	0.41	1.09	0.41
	155	0.01	0.05	0.00	0.06	0.94	0.35	1.37	0.29
	165	0.02	0.04	0.00	0.06	0.56	0.37	1.40	0.26
	175	0.02	0.05	0.01	0.07	0.55	0.39	0.94	0.36
	185	0.02	0.03	0.01	0.05	0.84	0.39	0.77	0.41
	195	0.01	0.03	0.00	0.05	0.76	0.47	0.00	0.39
	205	0.01	0.03	0.00	0.04	0.58	0.49	1.44	0.38
	215	0.01	0.04	0.00	0.05	1.31	0.32	0.00	0.30
	225	0.01	0.02	0.01	0.04	1.01	0.62	0.72	0.39
	235	0.01	0.01	0.01	0.02	1.30	0.80	0.89	0.52
	245	0.01	0.01	0.00	0.02	1.31	0.76	0.00	0.62
	255	0.00	0.01	0.00	0.01	0.00	0.89	0.00	0.89
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.01	1.61	1.34	0.00	1.01
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2001 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q2	75	0.00	0.00	0.01	0.01	0.00	0.00	1.41	1.41
	85	0.00	0.01	0.01	0.02	0.00	1.34	0.99	0.88
	95	0.00	0.01	0.01	0.01	0.00	1.22	1.64	0.98
	105	0.01	0.05	0.01	0.06	1.21	0.54	1.71	0.54
	115	0.05	0.03	0.04	0.12	0.62	0.53	0.74	0.34
	125	0.08	0.05	0.01	0.13	0.46	0.56	1.07	0.30
	135	0.02	0.08	0.02	0.12	0.91	0.46	0.87	0.30
	145	0.02	0.05	0.01	0.08	0.64	0.40	1.12	0.31
	155	0.05	0.05	0.01	0.10	0.63	0.51	1.40	0.37
	165	0.01	0.03	0.01	0.05	0.93	0.68	0.83	0.47
	175	0.01	0.07	0.02	0.11	0.84	0.53	0.57	0.41
	185	0.01	0.04	0.00	0.05	1.38	0.66	0.00	0.58
	195	0.01	0.02	0.01	0.04	1.45	0.67	1.49	0.50
	205	0.02	0.02	0.00	0.04	0.69	0.98	0.00	0.51
	215	0.00	0.02	0.01	0.02	0.00	0.67	1.42	0.62
	225	0.01	0.01	0.00	0.02	1.75	1.07	0.00	1.10
	235	0.00	0.01	0.00	0.01	0.00	0.82	0.00	0.82
	245	0.00	0.01	0.00	0.01	0.00	1.04	0.00	1.04
	255	0.00	0.01	0.00	0.01	0.00	1.82	0.00	1.82
	265	0.01	0.00	0.00	0.01	1.56	0.00	0.00	1.56
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q3	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.02	0.01	0.01	0.05	1.19	1.80	1.72	1.28
	115	0.05	0.03	0.00	0.08	0.87	1.27	0.00	0.66
	125	0.08	0.00	0.02	0.09	0.75	0.00	1.25	0.72
	135	0.03	0.05	0.02	0.09	0.97	0.82	1.22	0.72
	145	0.05	0.08	0.03	0.15	0.84	0.64	0.94	0.38
	155	0.03	0.03	0.00	0.06	0.90	1.25	0.00	0.77
	165	0.02	0.03	0.01	0.06	1.08	0.97	1.75	0.75
	175	0.05	0.03	0.00	0.08	0.83	1.09	0.00	0.52
	185	0.03	0.05	0.00	0.08	0.99	0.83	0.00	0.76
	195	0.05	0.03	0.02	0.09	0.85	0.95	1.16	0.72
	205	0.03	0.06	0.00	0.09	0.99	0.71	0.00	0.54
	215	0.00	0.03	0.00	0.03	0.00	0.99	0.00	0.99
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.03	0.00	0.03	0.00	1.04	0.00	1.04
	245	0.00	0.02	0.00	0.02	0.00	1.17	0.00	1.17
	255	0.00	0.02	0.00	0.02	0.00	1.16	0.00	1.16
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2001 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q4	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.05	0.00	0.05	0.11	0.94	0.00	1.04	0.56
	105	0.00	0.00	0.05	0.05	0.00	0.00	0.87	0.87
	115	0.03	0.03	0.11	0.16	1.35	1.47	0.71	0.53
	125	0.03	0.00	0.03	0.05	1.29	0.00	1.20	1.08
	135	0.00	0.08	0.00	0.08	0.00	0.87	0.00	0.87
	145	0.00	0.05	0.03	0.08	0.00	1.03	1.50	0.92
	155	0.03	0.00	0.08	0.11	1.26	0.00	0.89	0.87
	165	0.00	0.03	0.00	0.03	0.00	1.42	0.00	1.42
	175	0.00	0.00	0.03	0.03	0.00	0.00	1.24	1.24
	185	0.00	0.03	0.11	0.13	0.00	1.31	0.67	0.54
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.05	0.00	0.05	0.00	1.11	0.00	1.11
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.03	0.00	0.03	0.00	1.33	0.00	1.33
	235	0.03	0.03	0.00	0.05	1.23	1.27	0.00	0.84
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.03	0.00	0.00	0.03	1.21	0.00	0.00	1.21
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South, Q2	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.02	0.00	0.02	0.00	0.83	0.00	0.83
	195	0.01	0.02	0.00	0.03	1.30	0.95	0.00	0.72
	205	0.00	0.07	0.00	0.07	0.00	0.47	0.00	0.47
	215	0.01	0.11	0.00	0.12	1.45	0.30	0.00	0.30
	225	0.00	0.12	0.01	0.13	0.00	0.43	1.18	0.39
	235	0.02	0.18	0.01	0.21	1.08	0.27	1.30	0.25
	245	0.00	0.14	0.00	0.14	0.00	0.37	0.00	0.37
	255	0.00	0.11	0.00	0.11	0.00	0.50	0.00	0.50
	265	0.02	0.08	0.00	0.10	1.04	0.45	0.00	0.45
	275	0.00	0.04	0.00	0.04	0.00	0.60	0.00	0.60
	285	0.00	0.02	0.00	0.02	0.00	1.01	0.00	1.01
	295	0.00	0.01	0.00	0.01	0.00	1.23	0.00	1.23

2002		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.01	0.01	0.00	0.00	1.62	1.62
	105	0.01	0.03	0.02	0.05	1.53	1.39	1.08	0.78
	115	0.01	0.06	0.03	0.10	1.34	0.45	0.86	0.33
	125	0.04	0.06	0.03	0.12	0.69	0.60	0.95	0.41
	135	0.03	0.05	0.03	0.11	0.78	0.56	0.69	0.32
	145	0.03	0.14	0.03	0.19	0.92	0.31	0.75	0.22
	155	0.03	0.01	0.03	0.06	0.78	1.57	1.00	0.56
	165	0.00	0.07	0.02	0.09	0.00	0.56	1.19	0.46
	175	0.01	0.05	0.00	0.06	1.50	0.57	0.00	0.50
	185	0.03	0.03	0.00	0.05	0.84	0.81	0.00	0.52
	195	0.01	0.03	0.00	0.04	1.36	0.75	0.00	0.71
	205	0.00	0.04	0.00	0.04	0.00	0.69	0.00	0.69
	215	0.01	0.03	0.00	0.04	1.24	0.74	0.00	0.69
	225	0.00	0.01	0.01	0.02	0.00	1.29	1.31	0.85
	235	0.00	0.01	0.00	0.01	0.00	1.41	0.00	1.41
	245	0.00	0.01	0.00	0.01	0.00	1.27	0.00	1.27
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.01	0.00	0.01	0.00	1.45	0.00	1.45
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	325	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	335	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2002 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q2	75	0.00	0.00	0.02	0.02	0.00	0.00	1.50	1.50
	85	0.00	0.00	0.02	0.02	0.00	0.00	1.39	1.39
	95	0.00	0.00	0.02	0.02	0.00	0.00	1.39	1.39
	105	0.00	0.00	0.05	0.05	0.00	0.00	0.90	0.90
	115	0.00	0.00	0.07	0.07	0.00	0.00	1.06	1.06
	125	0.05	0.02	0.05	0.11	0.84	1.39	1.09	0.41
	135	0.00	0.00	0.02	0.02	0.00	0.00	1.37	1.37
	145	0.03	0.00	0.06	0.10	0.99	0.00	0.71	0.60
	155	0.02	0.06	0.03	0.11	1.57	1.01	1.20	0.46
	165	0.05	0.02	0.08	0.14	1.03	1.31	0.87	0.56
	175	0.00	0.05	0.02	0.06	0.00	1.06	1.40	0.74
	185	0.02	0.05	0.00	0.06	1.30	1.03	0.00	0.96
	195	0.02	0.00	0.02	0.03	1.38	0.00	1.52	0.97
	205	0.00	0.02	0.02	0.03	0.00	1.33	1.30	0.83
	215	0.00	0.02	0.02	0.03	0.00	1.42	1.37	0.88
	225	0.02	0.02	0.00	0.03	1.29	1.29	0.00	0.81
	235	0.00	0.03	0.00	0.03	0.00	1.11	0.00	1.11
	245	0.00	0.03	0.00	0.03	0.00	1.13	0.00	1.13
	255	0.00	0.02	0.02	0.03	0.00	1.34	1.46	0.88
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	325	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	335	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2002 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.33	0.00	0.33	0.00	0.88	0.00	0.88
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	195	0.33	0.00	0.00	0.33	0.82	0.00	0.00	0.82
	205	0.00	0.33	0.00	0.33	0.00	0.77	0.00	0.77
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	325	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	335	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2002 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q2	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.02	0.00	0.02	0.00	1.32	0.00	1.32
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.03	0.02	0.00	0.05	1.03	1.24	0.00	0.98
	215	0.03	0.08	0.02	0.13	0.90	0.59	1.32	0.34
	225	0.03	0.11	0.00	0.14	1.08	0.58	0.00	0.42
	235	0.08	0.13	0.00	0.21	0.86	0.54	0.00	0.35
	245	0.05	0.11	0.00	0.16	0.99	0.54	0.00	0.36
	255	0.03	0.11	0.00	0.14	0.79	0.56	0.00	0.41
	265	0.08	0.05	0.00	0.13	0.72	0.97	0.00	0.54
	275	0.00	0.02	0.00	0.02	0.00	1.43	0.00	1.43
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	325	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	335	0.00	0.02	0.00	0.02	0.00	1.36	0.00	1.36

2003		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q2	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.04	0.04	0.00	0.00	1.44	1.44
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.04	0.04	0.00	0.08	1.23	1.28	0.00	1.04
	115	0.00	0.04	0.00	0.04	0.00	1.49	0.00	1.49
	125	0.08	0.12	0.00	0.20	1.03	0.72	0.00	0.62
	135	0.00	0.20	0.00	0.20	0.00	0.52	0.00	0.52
	145	0.00	0.08	0.00	0.08	0.00	1.02	0.00	1.02
	155	0.04	0.00	0.00	0.04	1.30	0.00	0.00	1.30
	165	0.00	0.04	0.00	0.04	0.00	1.47	0.00	1.47
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.04	0.00	0.00	0.04	1.43	0.00	0.00	1.43
	195	0.00	0.08	0.00	0.08	0.00	0.94	0.00	0.94
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.08	0.00	0.08	0.00	1.13	0.00	1.13
	225	0.00	0.08	0.00	0.08	0.00	0.79	0.00	0.79
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2003 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	65	0.00	0.00	0.01	0.01	0.00	0.00	1.39	1.39
	75	0.00	0.00	0.01	0.01	0.00	0.00	1.53	1.53
	85	0.00	0.03	0.01	0.04	0.00	0.88	1.24	0.74
	95	0.00	0.00	0.03	0.03	0.00	0.00	1.10	1.10
	105	0.01	0.00	0.00	0.01	1.25	0.00	0.00	1.25
	115	0.03	0.00	0.00	0.03	1.15	0.00	0.00	1.15
	125	0.00	0.07	0.00	0.07	0.00	0.65	0.00	0.65
	135	0.01	0.06	0.03	0.10	1.32	0.71	1.33	0.52
	145	0.07	0.01	0.00	0.08	0.67	1.27	0.00	0.58
	155	0.01	0.06	0.00	0.07	1.24	0.68	0.00	0.66
	165	0.01	0.04	0.01	0.07	1.44	0.90	1.49	0.76
	175	0.01	0.07	0.00	0.08	1.28	0.59	0.00	0.53
	185	0.03	0.06	0.01	0.10	0.86	0.60	1.37	0.43
	195	0.01	0.06	0.01	0.08	1.19	0.75	1.42	0.51
	205	0.01	0.06	0.00	0.07	1.32	0.66	0.00	0.58
	215	0.01	0.06	0.00	0.07	1.43	0.61	0.00	0.60
	225	0.00	0.03	0.00	0.03	0.00	1.00	0.00	1.00
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.03	0.00	0.03	0.00	0.86	0.00	0.86
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.01	0.00	0.01	0.00	1.28	0.00	1.28
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2003 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q2	65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	195	0.00	0.05	0.00	0.05	0.00	0.80	0.00	0.80
	205	0.00	0.06	0.00	0.06	0.00	0.80	0.00	0.80
	215	0.02	0.09	0.00	0.11	1.47	0.52	0.00	0.46
	225	0.02	0.11	0.00	0.13	1.28	0.52	0.00	0.43
	235	0.00	0.10	0.00	0.10	0.00	0.46	0.00	0.46
	245	0.00	0.16	0.00	0.16	0.00	0.38	0.00	0.38
	255	0.00	0.19	0.02	0.21	0.00	0.43	1.37	0.45
	265	0.02	0.08	0.00	0.10	1.25	0.69	0.00	0.67
	275	0.00	0.03	0.00	0.03	0.00	0.79	0.00	0.79
	285	0.00	0.05	0.00	0.05	0.00	0.66	0.00	0.66
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	305	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	315	0.00	0.02	0.00	0.02	0.00	1.34	0.00	1.34

2004		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.02	0.02	0.00	0.05	1.31	1.26	0.00	1.04
	125	0.02	0.05	0.00	0.07	1.31	0.97	0.00	0.92
	135	0.10	0.05	0.02	0.17	0.68	1.02	1.38	0.52
	145	0.05	0.02	0.00	0.07	0.90	1.35	0.00	0.70
	155	0.10	0.05	0.00	0.15	0.62	1.22	0.00	0.49
	165	0.02	0.12	0.00	0.15	1.24	0.83	0.00	0.82
	175	0.02	0.05	0.00	0.07	1.73	1.26	0.00	1.28
	185	0.05	0.05	0.00	0.10	1.12	1.03	0.00	0.59
	195	0.00	0.02	0.02	0.05	0.00	1.25	1.32	1.03
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.02	0.00	0.00	0.02	1.45	0.00	0.00	1.45
	225	0.00	0.02	0.00	0.02	0.00	1.21	0.00	1.21
	235	0.02	0.02	0.00	0.05	1.33	1.33	0.00	0.83
	245	0.00	0.02	0.00	0.02	0.00	1.35	0.00	1.35
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North, Q2	85	0.00	0.01	0.01	0.02	0.00	1.02	1.21	0.63
	95	0.01	0.01	0.00	0.03	0.94	1.04	1.34	0.50
	105	0.03	0.02	0.00	0.05	0.65	0.75	1.33	0.60
	115	0.03	0.02	0.00	0.05	0.54	0.57	1.32	0.39
	125	0.05	0.02	0.01	0.08	0.46	0.52	0.90	0.33
	135	0.05	0.03	0.01	0.09	0.45	0.53	0.79	0.30
	145	0.05	0.02	0.01	0.08	0.35	0.58	0.89	0.27
	155	0.06	0.04	0.02	0.13	0.70	0.51	0.73	0.33
	165	0.03	0.04	0.02	0.10	0.71	0.54	0.83	0.29
	175	0.03	0.05	0.00	0.08	0.57	0.59	0.00	0.45
	185	0.02	0.04	0.00	0.07	0.85	0.57	1.22	0.43
	195	0.04	0.02	0.00	0.06	0.49	0.95	1.37	0.36
	205	0.02	0.03	0.00	0.05	0.87	0.49	0.00	0.51
	215	0.01	0.01	0.00	0.02	0.86	0.97	1.26	0.53
	225	0.00	0.02	0.00	0.02	1.31	0.55	0.00	0.55
	235	0.01	0.01	0.00	0.02	1.05	1.24	0.00	0.73
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.01	0.00	0.01	0.00	0.89	0.00	0.89
	265	0.00	0.00	0.00	0.01	1.32	1.21	0.00	0.78
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	1.30	0.00	0.00	1.30
	295	0.00	0.00	0.00	0.00	0.00	1.25	0.00	1.25

2004 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q3	85	0.00	0.00	0.02	0.02	0.00	0.00	1.44	1.44
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.02	0.06	0.07	0.00	1.61	1.06	0.86
	125	0.00	0.04	0.02	0.05	0.00	0.89	1.23	0.70
	135	0.04	0.02	0.00	0.05	0.94	1.61	0.00	0.83
	145	0.00	0.04	0.00	0.04	0.00	1.06	0.00	1.06
	155	0.04	0.04	0.02	0.09	0.91	0.93	1.67	0.66
	165	0.05	0.05	0.00	0.11	0.89	1.03	0.00	0.53
	175	0.04	0.07	0.02	0.13	1.03	0.65	1.70	0.53
	185	0.04	0.07	0.02	0.13	1.19	0.71	1.31	0.48
	195	0.00	0.07	0.00	0.07	0.00	0.67	0.00	0.67
	205	0.00	0.05	0.00	0.05	0.00	0.96	0.00	0.96
	215	0.00	0.05	0.02	0.07	0.00	0.91	1.30	0.63
	225	0.00	0.02	0.00	0.02	0.00	1.56	0.00	1.56
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.02	0.00	0.02	0.00	1.17	0.00	1.17
	255	0.00	0.04	0.00	0.04	0.00	1.01	0.00	1.01
	265	0.00	0.02	0.00	0.02	0.00	1.32	0.00	1.32
	275	0.00	0.02	0.00	0.02	0.00	1.24	0.00	1.24
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South, Q2	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.05	0.00	0.00	0.05	1.38	0.00	0.00	1.38
	185	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	195	0.05	0.00	0.00	0.05	1.30	0.00	0.00	1.30
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.05	0.00	0.05	0.00	1.31	0.00	1.31
	225	0.00	0.10	0.00	0.10	0.00	1.04	0.00	1.04
	235	0.00	0.14	0.00	0.14	0.00	0.67	0.00	0.67
	245	0.05	0.19	0.00	0.24	1.30	0.57	0.00	0.47
	255	0.05	0.19	0.00	0.24	1.24	0.64	0.00	0.55
	265	0.00	0.05	0.00	0.05	0.00	1.09	0.00	1.09
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.05	0.00	0.05	0.00	1.05	0.00	1.05
	295	0.00	0.05	0.00	0.05	0.00	1.26	0.00	1.26

2004 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
South, Q3	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.18	0.00	0.18	0.00	0.81	0.00	0.81
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.09	0.18	0.00	0.27	1.17	0.77	0.00	0.52
	215	0.00	0.09	0.00	0.09	0.00	1.22	0.00	1.22
	225	0.00	0.09	0.00	0.09	0.00	1.15	0.00	1.15
	235	0.00	0.09	0.00	0.09	0.00	1.19	0.00	1.19
	245	0.00	0.09	0.00	0.09	0.00	1.05	0.00	1.05
	255	0.00	0.18	0.00	0.18	0.00	0.76	0.00	0.76
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	285	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	295	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2005		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q1	85	0.00	0.00	0.01	0.01	0.00	0.00	1.02	1.02
	95	0.01	0.04	0.00	0.04	0.97	0.50	0.00	0.45
	105	0.01	0.05	0.00	0.06	1.03	0.40	0.00	0.38
	115	0.00	0.02	0.00	0.02	0.00	0.73	0.00	0.73
	125	0.01	0.03	0.00	0.04	0.98	0.60	0.00	0.51
	135	0.03	0.05	0.00	0.08	0.57	0.40	0.00	0.31
	145	0.01	0.08	0.01	0.10	1.09	0.29	0.95	0.25
	155	0.02	0.04	0.00	0.06	0.72	0.41	0.00	0.37
	165	0.02	0.07	0.01	0.10	0.74	0.33	1.06	0.28
	175	0.01	0.04	0.00	0.05	0.96	0.46	0.00	0.41
	185	0.00	0.04	0.01	0.05	0.00	0.44	1.05	0.41
	195	0.00	0.10	0.01	0.11	0.00	0.29	1.02	0.27
	205	0.03	0.07	0.00	0.10	0.57	0.35	0.00	0.29
	215	0.00	0.07	0.01	0.08	0.00	0.33	0.99	0.32
	225	0.01	0.03	0.00	0.04	0.96	0.57	0.00	0.46
	235	0.00	0.04	0.00	0.04	0.00	0.51	0.00	0.51
	245	0.00	0.01	0.00	0.01	0.00	0.88	0.00	0.88
	255	0.00	0.02	0.00	0.02	0.00	0.65	0.00	0.65
	265	0.00	0.01	0.00	0.01	0.00	0.97	0.00	0.97
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2005 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q2	85	0.00	0.00	0.02	0.02	0.00	0.00	1.02	1.02
	95	0.01	0.01	0.03	0.04	1.23	1.74	0.76	0.63
	105	0.02	0.02	0.07	0.11	0.92	0.90	0.55	0.38
	115	0.02	0.03	0.03	0.08	0.70	0.71	0.63	0.36
	125	0.01	0.03	0.03	0.07	1.08	0.78	0.55	0.40
	135	0.02	0.02	0.00	0.04	0.69	0.86	1.82	0.47
	145	0.02	0.03	0.00	0.05	0.91	0.80	0.00	0.52
	155	0.03	0.04	0.02	0.09	0.65	0.72	0.80	0.37
	165	0.01	0.05	0.00	0.06	1.05	0.47	1.87	0.36
	175	0.02	0.04	0.01	0.06	0.94	0.58	1.24	0.38
	185	0.00	0.03	0.02	0.05	1.69	0.69	1.00	0.52
	195	0.02	0.04	0.00	0.06	0.83	0.82	1.58	0.49
	205	0.02	0.04	0.02	0.07	1.13	0.69	1.03	0.55
	215	0.00	0.05	0.00	0.06	0.00	0.50	1.58	0.43
	225	0.01	0.06	0.01	0.07	1.86	0.78	1.70	0.56
	235	0.00	0.04	0.00	0.04	0.00	0.50	0.00	0.50
	245	0.00	0.02	0.01	0.02	0.00	0.95	1.28	0.88
	255	0.00	0.01	0.01	0.02	0.00	0.99	1.25	0.79
	265	0.00	0.01	0.00	0.01	0.00	0.94	0.00	0.94
	275	0.01	0.00	0.00	0.01	1.56	0.00	0.00	1.56
North, Q3	85	0.00	0.00	0.01	0.01	0.00	0.00	1.57	1.57
	95	0.00	0.00	0.01	0.01	0.00	0.00	1.45	1.45
	105	0.00	0.01	0.02	0.03	0.00	1.88	1.09	1.05
	115	0.03	0.01	0.03	0.06	0.93	1.38	0.92	0.56
	125	0.02	0.03	0.03	0.07	1.08	0.85	0.73	0.62
	135	0.01	0.01	0.00	0.02	1.37	1.55	0.00	1.06
	145	0.01	0.01	0.00	0.02	1.49	1.39	0.00	1.20
	155	0.02	0.09	0.02	0.13	1.10	0.42	1.27	0.48
	165	0.04	0.09	0.01	0.13	0.75	0.74	1.80	0.41
	175	0.02	0.10	0.00	0.12	0.97	0.61	0.00	0.52
	185	0.02	0.05	0.01	0.07	1.05	0.59	1.40	0.46
	195	0.02	0.10	0.00	0.12	0.98	0.44	0.00	0.35
	205	0.00	0.04	0.01	0.04	0.00	0.67	1.40	0.65
	215	0.00	0.03	0.00	0.03	0.00	0.79	0.00	0.79
	225	0.00	0.04	0.00	0.04	0.00	0.66	0.00	0.66
	235	0.02	0.04	0.00	0.05	1.20	1.02	0.00	0.68
	245	0.01	0.01	0.00	0.02	1.43	1.39	0.00	0.97
	255	0.00	0.03	0.00	0.03	0.00	0.91	0.00	0.91
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.01	0.00	0.01	0.00	1.44	0.00	1.44

2005 continued		Proportions				c.v.s			
Stratum	Length	Male	Female	Unsexed	Total	Male	Female	Unsexed	Total
North, Q4	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.47	0.47	0.00	0.00	0.70	0.70
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.00	0.53	0.00	0.53	0.00	0.69	0.00	0.69
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	225	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	255	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South, Q2	85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	185	0.06	0.06	0.00	0.13	1.45	1.21	0.00	0.93
	195	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	205	0.06	0.06	0.06	0.19	1.11	1.20	1.41	0.64
	215	0.06	0.00	0.00	0.06	1.17	0.00	0.00	1.17
	225	0.13	0.00	0.00	0.13	0.93	0.00	0.00	0.93
	235	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	245	0.06	0.25	0.00	0.31	1.31	0.68	0.00	0.70
	255	0.00	0.13	0.00	0.13	0.00	0.95	0.00	0.95
	265	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	275	0.00	0.06	0.00	0.06	0.00	1.23	0.00	1.23