

A14.0 TABLES

Table A4.1. Atlantic Coast Fisheries Regulations, 2006 – Commercial

State	Area	Gear	Size Limit (inches TL)	Open Season	Possession Limit (or other)	Quota (pounds)
ME	No commercial fishing or sale of striped bass caught in Maine waters. Possession limit of 1 fish as import.					
NH	The taking of striped bass by netting of any form is prohibited. The sale of striped bass is prohibited regardless of origin.					
MA	Statewide	Hook and line	34" min.	7/12 - 8/10	5 fish/day (Sun.); 30 fish per day on Tues. - Thurs.	1,094,962
RI	Statewide	General (Hook&Line, mainly)	34" min.	Closed 1/1 - 5/31	4 fish (6/10-8/31); 3 fish (9/1-12/31)	Overall: 243,625
CT	Commercial fishing for striped bass is prohibited in all waters of the state	Trap	28" min.	All year	None	
		Gill nets (6 - 8" stretched mesh), pound nets, hook&line, trawls, gill nets (<6" or >8"				
NY	Coastal		24" - 36"	7/1 - 12/15	7/fish by-catch limit/trip, except a 21 fish limit for trawl	828,293
NJ	No netting and no sale of striped bass in the state. The commercial allocation is basis of the Bonus Fish Program					
PA	No commercial harvest or sale					
		Gill net: no fixed nets Delaware River; 5 1/2" and 0.28 twine size max.: Nanticoke; 2/15 - 2/28 and 5/1-31 drift gill net only	20 min. (Spring gill net season Delaware River and Bay and Nanticoke) 28 all other	Gill net spring: 2/15 - 5/31 (3/1 - 3/31,Nanticoke River); gill net fall: 11/15 - 12/31. Hook&line- 4/1 - 12/31	Mandatory daily accounting of pounds and number of fish landed. All fish were tagged twice; once by the fisherman and by an authorized weigh-station.	Statewide: 193,447
DE	Various			Pound net/haul seine: 6/1 - 11/30; Hook&Line: 6/14 - 11/30 (select days only); Drift gill net: 1/1 - 2/28 and 12/1 - 12/31	Pound net/haul seine: 200 pounds/licensee/day; Hook&line: 800 pounds/licensee/week; drift gill: 500 pounds/licensee/day	Bay & Rivers= 2,134,116
MD	Chesapeake Bay	Pound net/Haul seine; Hook&Line;Drift Gill Net	18" - 36" only	1/1 - 4/30 and 11/1 - 12/31	No trip limit	131,560
Atlantic Coast	Drift gill net/Otter trawl		24			
D.C.	Commercial fishing for striped bass is prohibited in the District of Columbia.					
		Gill net; pound net; hook&line; haul seine; fyke net, trot line, fish pot	Min.: 18"; Max. 36" (1/1 - 3/25)	2/15 - 3/25 & 6/1 - 12/31		791,195
PRFC	Potomac River					
		Any legal gear. Gill net, hook&line, pound net, haul seine are typical	Min.: 18"; Max. 28" (3/25 - 6/15)		Individual Transferable Quota system in Bay since 1998; roughly 450 shares of the quota	Bay & Rivers=1,554,302
VA	Chesapeake Bay			2/1 - 12/31	Itq; 34 shares (since 2003)	184,853
Atlantic Coast	Gill net, hook&line, haul seine		28" min.	2/1 - 12/31	Lbs.-seine (50); gill net(10) trawl (100)	480,480
NC	Atlantic Coast	Beach seine, gill nets, trawl	28" min.	Winter		

Table A4.1 cont. – Recreational

State	Size Limits	Gear	Possession Limit (or other)	Open Season
ME	1 fish 20-26' OR 1 fish >40"	Hook and line only	1 fish	All year except spawning areas; 12/1 - 4/30 spawning areas; 5/1 - 6/30 catch & release
NH	28"	No gaffing; culling is prohibited	2; only 1 fish >40"	All year
MA	28"	Hook and line	2 fish	All year
RI	28"		2 fish	All year
CT	28"		2 fish	All year
NY	<u>Marine District</u> - Licensed Party/Charter Boat anglers: Min. Length 28". All other Anglers: Min. Length 28 - 40". <u>Hudson River</u> - 18". <u>Delaware River</u> - 28" total length.	Anglers fishing w/ natural bait in the Delaware River are required to use non-offset circle hooks from 4/1 - 5/31.	<u>Marine District</u> - Licensed Party/Charter Boat anglers: 2 fish. All other Anglers: 1 fish, and > 40 inches, 1 fish. <u>Hudson River</u> - 1 fish. <u>Delaware River</u> - 2 fish	<u>Marine District</u> : 4/15- 12/15. <u>Hudson River</u> - 3/15 - 11/30. <u>Delaware River</u> - All year.
NJ	28'		2 striped bass- all waters	Closed Seasons: Jan. - Feb. in all intra-coastal waters; Apr. - May in the lower Delaware River (Spawning ground closure) From Trenton Falls downstream - Open 3/1 - 3/31 & 6/1 - 12/31. All year for the rest of the river.
P.A	28"	Legal gear: Hook and line, spear (for divers); striped bass may not be harvested from recreational gill nets.	2 fish	All year except spawning grounds. Spawning ground closures: Closed to harvest 4/1 - 5/31. Circle hooks required during 4/1 - 5/31.
DE	28"		2 fish	
MD	<u>Spring Trophy</u> : 33" <u>Summer/Fall</u> : 18 - 28"		<u>Spring Trophy</u> : 1 fish <u>Summer/Fall</u> : 2 fish 18-28" OR 1 fish 18-28" plus 1 fish > 28".	<u>Susquehanna Flats Catch and Release</u> : 3/1 - 5/3. <u>Spring Trophy</u> : 4/15 - 5/15. <u>Summer/Fall</u> : Boundaries changed according to the following schedule: 5/16 - 5/31. All other tributaries, bays, creeks, rivers, and sounds closed except Tangier and Pocomoke
D.C.	18"-36"		<u>Ocean</u> : 2 fish 2 fish	5/1 - 11/19
PRFC	<u>Spring Trophy</u> : 28" <u>Summer/Fall</u> : 18"		<u>Spring Trophy</u> : 1 fish <u>Summer/Fall</u> : 2 fish	<u>Spring Trophy</u> : 4/15 - 5/15 <u>Summer/Fall</u> : 5/15 - 12/31
VA	<u>Bay & Coastal Trophy</u> : 32". <u>Potomac Tribs Spring</u> : 28". <u>Ches. Spring</u> : 18" min 28" max. <u>Ches. Fall</u> : 18" min 28" max. <u>Potomac Tribs Fall</u> : 18" min 28" max. <u>Coastal</u> : 28" min.		<u>Bay & Coastal Trophy and Potomac Tribs Spring</u> : 1 fish. <u>Ches. Spring & Fall, Potomac Tribs Fall & Coastal</u> : 2 fish	<u>Bay & Coastal Trophy</u> : 5/1 - 5/15. <u>Potomac Tribs Spring</u> : 4/15 - 5/15. <u>Ches. Spring</u> : 5/16 - 6/15. <u>Ches. Fall</u> : 10/4 - 12/31. <u>Potomac Tribs Fall</u> : 5/16 - 12/31. <u>Coastal</u> : 1/1 - 3/31 & 5/16 - 12/31.
NC	<u>Ocean</u> : 28" min.		<u>Ocean</u> : 2 fish	<u>Ocean</u> : All year

Table A5.1. State-specific summaries of commercial harvest and biological samples collected by gear type and quarter

State	Year	Hook and Line						Trap						Rod & Reel					
		Quarter	Harvest Pounds	Number	Hours Fished	Length Samples	Samples Aged	Quarter	Harvest Pounds	Number	Effort	Length Samples	Samples Aged	Quarter	Harvest Pounds	Number	Effort	Length Samples	Samples Aged
MA	2000	3	779,736	40256	113321	481													
	2001	3	815,054	40248	101395	540													
	2002	3	924,890	44897	106478	544													
	2003	3	1,055,439	55433	95046	628													
	2004	3	1,206,305	60632	121474	855													
	2005	3	1,104,737	59473	93861	742													
2006	3	1,312,168	69,986	94797	607	306													
RI	2000					0													
	2001	1-4	54,312	6,075		139	135*						1-4	109,431	5,848				
	2002	1-4	63,375	6,586		0	0						1-4	107,798	5,814			197	185*
	2003	1-4	66,870	6,874		314	314*						1-4	171,155	9,150			185	185*
	2004	1-4	78,559	7,681		244	157						1-4	166,645	8,211			319	82
	2005	1-4	68,219	6,446		412	412						1-4	174,084	8,366			492	490
2006	1-4	63,827	6,562		425	188						1-4	174,970	8,867			424	0	
NY	2000																		
	2001	3-4	542,659	54,895		814	814						3-4						
	2002	3-4	633,095	58,296		839	839						3-4						
	2003	3-4	518,573	47,143		508	508						3-4						
	2004	3-4	753,261	68,354		524	524						3-4						
	2005	3-4	741,668	70,367		481	481						3-4						
2006	3-4	689,821	70,560		185	185						3-4							
		3-4	687,204	73,528		580	580												

Table A5.1 cont.

State	Year	Hook and Line				Gillnet landings				Striped Bass discards from gill nets			
		Quarter	Harvest Pounds	Harvest Number	Effort (man-days)	Length Samples	Measured Bass	Effort (yard-days)	Harvest Pounds	Harvest Number	Length Samples	Discards Pounds	Discards Number
Delaware	2000	1+2	0	0	100	80	79	19147	325,720	412	252	188	139
		3+4	4800	857	0	80	79	19147	325,720	412	252	188	139
	2001	1+2	0	0	0	56	56	0	0	0	0	0	0
		3+4	5732	957	0	56	56	0	0	0	0	0	0
	2002	1+2	0	0	0	32	32	21948	250,655	260	260	621	215
		3+4	6,883	1130	0	32	32	21948	250,655	260	260	621	215
	2003	1+2	0	0	0	35	34	28084	223,522	493	430	235	235
		3+4	6,922	1,183	0	35	34	28084	223,522	493	430	235	235
	2004	1+2	4,571	287	32	32	32	27553	264,697	176	176	-	-
		3+4	4,571	287	32	32	32	27553	264,697	176	176	-	-
	2005	1+2	2,956	353	6	6	6	3069	856,096	11	11	-	-
		3+4	2,956	353	6	6	6	3069	856,096	11	11	-	-
2006	1+2	5,787	459	2	2	2	1,540	66,076	185	160	-	-	
	3+4	5,787	459	2	2	2	1,540	66,076	185	160	-	-	

State	Year	Hook and Line				Poundnet/haul seine				Gillnet					
		Quarter	Harvest Pounds	Harvest Number	Effort (man-days)	Measured Bass	Length Samples	Harvest Pounds	Harvest Number	Effort (yard-days)	Length Samples	Harvest Pounds	Harvest Number	Effort (yard-days)	Length Samples
MD	2000	2	76,140	29,679	2,769	444	444	32,491	2,277	98	98	865,131	24,3571	4,287,596	3009
		3	471,945	123,394	13,700	930	930	154,967	44,504	5,894	253	128,851	0	931,529	1062
		4	197,903	58,153	5,973	558	209	171,821	25,366	4,867	282	422,135	74,660	2,573,909	2529
		2	85,554	21,895	1,462	450	226	81,441	12,906	2,494	13	164,550	40,833	858,155	1243
	2001	3	222,671	62,662	7,323	898	898	205,537	55,647	7,349	581	422,135	17,5947	3,005,879	2802
		4	63,629	22,572	5,555	345	226	365,628	87,015	7,714	521	240,542	40,833	948,110	1289
		2	46,976	12,491	1,957	154	217	122,146	33,521	2,378	114	583,788	13,2657	2,093,349	1836
		3	174,073	62,662	5,232	948	948	141,062	55,647	5,379	542	160,980	60,758	681,900	974
	2002	4	138,295	22,572	3,699	595	217	208,185	87,015	19,484	424	702,507	128,417	2,867,549	2566
		2	57,869	14,716	1,479	319	182	148,648	39,974	2,105	138	218,810	61,701	688,740	1035
		3	178,263	53,639	5,147	1079	182	110,700	35,287	3,291	394	919,689	86,686	2,931,860	2341
		4	137,060	38,606	3,205	379	182	343,400	47,350	3,151	758	347,528	91,393	962,654	1040
2003	2	23,309	7,027	839	307	256	55,905	10,033	1,136	128	882,553	233,444	2,293,187	2566	
	3	167,728	55,990	4,675	883	256	130,630	49,280	3,381	395	46,987	12,023	376,090	408	
	4	164,592	56,738	11,147	775	256	320,575	77,290	3,457	330	46,987	12,023	376,090	408	
	2	28,384	5,887	1,293	369	196	67,522	13,355	1,601	202	882,553	233,444	2,293,187	2566	
2004	3	105,527	33,264	4,708	1071	210	79,632	28,939	2,748	536	882,553	233,444	2,293,187	2566	
	4	149,892	47,945	2,477	718	210	366,365	107,417	2,781	421	882,553	233,444	2,293,187	2566	
	2	21786	6,337	953	393	196	113,514	26,562	1,172	78	882,553	233,444	2,293,187	2566	
	3	234710	79,416	6,766	1065	196	241,249	86,950	3,007	436	882,553	233,444	2,293,187	2566	
2005	4	257523	84,111	4,058	648	196	317,935	102,333	2,597	430	882,553	233,444	2,293,187	2566	
	2	257523	84,111	4,058	648	196	317,935	102,333	2,597	430	882,553	233,444	2,293,187	2566	

Table A5.1 cont.

State	Year	Quarter	ati Irwigill				
			Pounds	Harvest Number	BOA/DAYS*TOT Effort	Length Samples	Samples Aged
MD	2000	1	26494	3786	268,815	0	
		2	17,755	1,890	110,790	0	
		4	51,600	6,359	20,726	0	0
		4	9384	1420	60,366	0	
2001	2001	1	26,251	3,408	11,840	0	
		2	56,151	6,259	19,902	0	0
		4	32421	4335	43,836	0	
		4	14,933	1,477	20,819	0	
2002	2002	1	42,032	6,259	37,002	0	0
		2	26295	3342	14,555	0	
		4	17,064	1,769	13,367	0	
		4	54,790	4,405	42,139	0	0
2003	2003	1	7720	893	18,235	0	
		2	4,593	410	80,134	0	
		4	100,791	12,495	95,139	0	0
		4	12632	1795	6,026	0	
2004	2004	1	1,055	112	5,489	0	
		2	33,184	4,198	72,273	0	0
		4	17936	2106	20,497	156	
		4	13,242	1,308	12,057	150	
2005	2005	1	59,915	7,121	104,178	254	127
		2					
		4					
		4					

Table A5.1 cont.

State	Year	Gill Net					Hook-and-Line					Pound Net											
		Quarter	Pounds	Number	Effort	Measured Bass	Harvest Pounds	Number	Effort	Length Samples	Samples Aged	Quarter	Pounds	Number	Effort	Length Samples	Samples Aged	Quarter	Pounds	Number	Effort	Length Samples	Samples Aged
VA	2000	1-2	680,224	74,079	2,983	345	15,039	1,986	116	0	0	1-2	72,225	11,489	791	99	20	1-2	72,225	11,489	791	99	20
		3-4	907,117	75,361	1,898	1,071	93,819	4,787	664	117	84	3-4	93,850	24,365	953	385	58						
	2001	1-2	1,103,773	88,443	3,192	815	15,967	2,866	124	25	0	1-2	36,565	6,289	575	98	22						
		3-4	365,583	26,620	1,338	212	63,097	3,332	455	187	150	3-4	71,462	15,543	657	703	375						
2002	1-2	1,222,020	91,362	2,816	802	68,273	4,404	216	63	30	1-2	26,780	5,887	536	149	130							
	3-4	176,194	14,789	750	179	63,888	5,053	368	165	66	3-4	40,028	9,047	537	512	200							
2003	1-2	1,072,165	93,686	2,452	1,592	15,021	1,094	113	47	47	1-2	57,840	12,237	592	170	39							
	3-4	530,391	34,526	1,319	417	119,612	8,931	497	92	57	3-4	39,138	8,280	387	288	163							
2004	1-2	996,594	82,754	2,036	255	42,414	3,630	122	37	37	1-2	31,140	5,754	376	160	92							
	3-4	470,252	40,676	1,336	333	69,168	6,249	467	51	36	3-4	36,859	6,811	400	414	227							
2005	1-2	1,153,431	74,333	2,087	993	15,584	958	80	1	1	1-2	39,357	5,850	477	197	67							
	3-4	436,730	26,807	1,050	1,175	59,097	4,507	335	108	26	3-4	26,705	4,485	318	220	106							
2006	1-2	847,600	53,876	2,325	1,108	53,453	4,894	192	81	65	1-2	24,620	4,467	365	78	39							
	3-4	349,250	26,193	1,339	1,503	87,502	6,473	514	93	45	3-4	35,846	6,281	240	214	45							

State	Year	Haul Seine					Fyke net					Other											
		Quarter	Pounds	Number	Effort	Length Samples	Harvest Pounds	Number	(Trips) Effort	Length Samples	Samples Aged	Quarter	Pounds	Number	(Trips) Effort	Length Samples	Samples Aged	Quarter	Pounds	Number	(Trips) Effort	Length Samples	Samples Aged
VA	2000	1-2	3,217	512	26	0	7,632	1,214	46	22	22	1-2	108	17	6	0	0	1-2	108	17	6	0	0
		3-4	9,796	2,543	15	0	598	155	10	0	0	3-4	231	60	13	0	0						
	2001	1-2	7,101	1,221	14	0	9,046	1,556	45	0	0	1-2	90	15	2	0	0	1-2	90	15	2	0	0
		3-4	602	131	6	13	2,168	472	16	0	0	3-4	15	3	6	0	0						
2002	1-2	7,255	1,595	21	2	0	0	0	0	0	1-2	77	17	3	0	0	1-2	77	17	3	0	0	
	3-4	122	28	2	0	0	0	0	0	0	3-4	36	8	7	0	0							
2003	1-2	16,997	3,596	11	0	3,510	743	51	0	0	1-2	0	0	0	0	0	1-2	0	0	0	0	0	
	3-4	113	24	3	7	1,714	363	17	0	0	3-4	330	70	4	0	0							
2004	1-2	15,790	2,918	17	0	4,295	794	20	0	0	1-2	0	0	0	0	0	1-2	0	0	0	0	0	
	3-4	1,780	329	14	31	0	0	0	0	0	3-4	15	3	3	0	0							
2005	1-2	5,063	753	5	0	6,364	946	12	0	0	1-2	0	0	0	0	0	1-2	0	0	0	0	0	
	3-4	1,511	254	8	0	1,394	234	19	0	0	3-4	159	27	0	0	0							
2006	1-2	10,473	674	14	53	871	158	21	0	0	1-2	3,698	671	2	0	0	1-2	3,698	671	2	0	0	
	3-4	83	5	1	0	0	0	0	0	0	3-4	122	21	10	0	0							

Table A5.1 cont.

State	Year	Beach haul seine				Ocean Gillnet				
		Quarter	Harvest Pounds	Harvest Number	Length Samples	Year	Quarter	Harvest Pounds	Harvest Number	Length Samples
NC	2000	4	68,824	3037	281	2000	1	No fishery due to overage previous year	69	69
	2001	4	103,579	5459	161	2001	1	105,219	4643	83
	2002	4	233,180	12495	288	2002	1	111,116	5856	170
	2003	4	No fishery due to overage previous year			2003	1	140,793	7544	211
	2004	4	181,509	9550	178	2004	1	204,018	9405	186
2005	4	329,702	13612	299	2005	1	219,733	11563		

State	Year	Ocean Trawl			
		Quarter	Harvest Pounds	Harvest Number	Length Samples
NC	2000	1	99,532	4864	270
	2001	1	176,237	7776	103
	2002	1	84,795	4469	160
	2003	1	108,150	5795	239
	2004	1	220,166	10150	285
2005	1	39,627	2085	33	

Notes

RI
VA

*=- value indicates the number of scales that were collected; the number that were actually processed for ageing is not known

Note: Changes made in database for 2003 and 2004, these numbers represent the current pounds and numbers and does not reflect the data found in the 2003 and 2004 Annual Striped Bass Reports
 Note: In 2005 the Pound net data included in the Annual Report includes the data from Haul seine and fyke nets.

Note: In 2004 the Pound net data included in the Annual Report includes the data from Haul seine

Note: In 2003 and 2004 the hook and line data were included with the GN data in the StrB Annual Report
 Note: In 2003 the PN data included in the Annual Report includes the HS, FN, trot line and crab pot gears (under other gear above)

2000 hook and line used 2000 and 2001 (combined) stock assessment data to get average weights

2001 stock assessment data used for 2001 averages, 2002 stock assessment data used for 2002 average data

2005 only 1 HL fish in the spring, from the coastal area, used the average weight from gn coast spring

Note: Used the pound net average weight for the haul seine, fyke net and other gear types.

Table A5.2. Total harvest (metric tons and numbers) of striped bass along the Atlantic Coast, 1982–2006

Year	Commercial		Recreational		Total	
	<i>metric tons</i>	<i>number</i>	<i>metric tons</i>	<i>number</i>	<i>metric tons</i>	<i>number</i>
1982	992	428,630	1,144	217,256	2,135	645,886
1983	639	357,541	1,224	307,134	1,863	664,675
1984	1,104	870,871	582	117,993	1,685	988,864
1985	431	174,621	376	139,494	807	314,115
1986	63	17,681	502	115,576	565	133,257
1987	63	13,552	388	43,755	451	57,307
1988	117	33,310	578	92,499	694	125,809
1989	91	7,402	336	38,074	427	45,476
1990	313	115,636	1,010	163,242	1,323	278,878
1991	668	153,798	1,653	262,469	2,321	416,267
1992	650	230,714	1,830	300,530	2,480	531,244
1993	794	312,860	2,563	428,719	3,357	741,579
1994	806	307,443	3,083	565,671	3,889	873,114
1995	1,555	534,914	5,709	1,108,553	7,264	1,643,467
1996	1,541	766,518	6,040	1,199,957	7,581	1,966,475
1997	2,679	1,058,181	7,336	1,648,127	10,015	2,706,308
1998	2,936	1,223,828	5,850	1,457,057	8,786	2,680,885
1999	2,963	1,103,783	6,335	1,446,388	9,299	2,550,171
2000	3,038	1,057,711	8,060	2,025,113	11,099	3,082,824
2001	2,843	941,733	8,880	2,085,130	11,723	3,026,863
2002	2,740	654,062	8,449	1,973,171	11,189	2,627,233
2003	3,199	868,987	10,405	2,545,052	13,603	3,414,039
2004	3,332	907,501	12,596	2,615,629	15,928	3,523,130
2005	3,240	968,206	11,765	2,335,391	15,005	3,303,597
2006	3,073	1,049,587	13,814	2,774,542	16,887	3,824,129

Table A5.3. Commercial landings (numbers) of striped bass along the Atlantic Coast by state, 1982–2006

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	PRFC	VA	NC	Total
1982			26,183	52,896	207	74,935		12,794	189,089	54,421	14,905	3,200	428,630
1983			9,528	48,173	83	66,334		5,806	147,079	63,171	15,962	1,405	357,541
1984			5,838	8,878	192	70,472		12,832	392,696	372,924	6,507	532	870,871
1985	90		7,601	7,173	350	52,048		1,359		82,550	23,450		174,621
1986			3,797	2,668						10,965	251		17,681
1987			3,284	23						9,884	361		13,552
1988			3,388							19,334	10,588		33,310
1989			7,402										7,402
1990			5,927	784		11,784		698	534	38,884	56,222	803	115,636
1991			9,901	3,596		15,426		3,091	31,880	44,521	44,970	413	153,798
1992			11,532	9,095		20,150		2,703	119,286	23,291	42,912	1,745	230,714
1993			13,099	6,294		11,181		4,273	211,089	24,451	39,059	3,414	312,860
1994			11,066	4,512		15,212		4,886	208,914	25,196	32,382	5,275	307,443
1995			44,965	19,722		43,704		5,565	280,051	29,308	88,274	23,325	534,914
1996			38,354	18,570		39,707		20,660	415,272	46,309	184,495	3,151	766,518
1997			44,841	7,061		37,852		33,223	656,416	87,643	165,583	25,562	1,058,181
1998			43,315	8,835		45,149		31,386	780,893	93,299	204,911	16,040	1,223,828
1999			40,838	11,559		49,795		34,841	650,022	90,575	205,143	21,010	1,103,783
2000			40,256	9,418		54,894		25,188	627,777	91,471	202,227	6,480	1,057,711
2001			40,248	10,917		58,296		34,373	538,808	87,809	148,346	22,936	941,733
2002			44,897	11,653		47,142		30,440	296,635	80,300	127,211	15,784	654,062
2003			55,433	15,497		68,354		31,530	439,482	83,090	161,778	13,823	868,987
2004			60,632	16,040		70,367		28,406	461,064	91,980	147,998	31,014	907,501
2005			59,966	14,949		70,560		26,336	569,964	80,615	119,244	26,572	968,206
2006			69,986	15,429		73,528		30,212	655,951	92,288	109,395	2,798	1,049,587

Table A5.4. Age structure of commercial harvest in 2005 and 2006 by state

2005 State	Age													Total				
	1	2	3	4	5	6	7	8	9	10	11	12	13+					
ME																		
NH							1197	11950	16842	10777	8190	4103	6907	59,966				
MA				27	172	632	1,337	3,019	2,896	2,789	1,880	1,002	1,195	14,949				
CT																		
NY			417	6,635	11,375	12,764	11,959	4,124	10,307	7,814	2,786	2,061	317	70,560				
NJ																		
DE				525	4,332	5,395	4,096	4,726	4,143	2,690	280	150	0	26,336				
MD		144	42,952	214,726	203,839	62,171	21,599	11,773	7,424	2,928	2,164	105	139	569,964				
PRFC				14,396	26,735	14,396	9,049	10,283	5,347	411				80,615				
VA			90	3,387	5,078	5,710	6,791	8,975	24,725	19,079	19,509	12,624	13,277	119,244				
NC						51	0	758	2,627	3,587	6,719	5,860	6,971	26,572				
Total	144	43,459	239,696	251,531	101,118	56,027	55,607	74,311	50,075	41,527	25,904	28,806	968,206					

2006 State	Age													Total				
	1	2	3	4	5	6	7	8	9	10	11	12	13+					
ME																		
NH							460	2,868	11,125	19,766	15,563	9,697	10,506	69,985				
MA							1,319	3,325	4,016	2,832	1,878	970	993	15,429				
CT					50													
NY			127	1,411	18,155	14,102	9,681	8,671	6,587	7,623	4,568	1,186	1,418	73,528				
NJ																		
DE				13	4,755	14,373	4,281	2,548	1,157	1,099	332	840	813	30,212				
MD			90,171	154,029	254,656	104,954	25,365	14,508	5,655	3,488	2,194	187	743	655,951				
PRFC				185	35,808	49,282	4,522	369	1,015	554				92,288				
VA		81	336	1,303	8,694	11,275	6,097	9,713	16,389	25,124	14,064	9,195	7,123	109,395				
NC							17	85	326	684	1,031	2,798	2,798					
Total	81	90,819	192,564	335,592	149,273	47,573	42,664	45,568	60,812	39,283	22,731	22,628	1,049,586					

Table A5.5. Tag returns of striped bass by commercial gear in 2005 and 2006

Area		Commercial Gear							Total
		Anchor Gill Net	Drift Gill Net	Hook & Line	Other	Pound Net	Seine	Trawl	
2005									
<i>Number</i>	Coast	9	8	33	3	10	5	4	72
	Chesapeake Bay	35	12	5	2	131	2	0	187
	Delaware Bay	4	1	39					44
<i>Proportion</i>	Coast	0.125	0.111	0.458	0.042	0.139	0.069	0.056	
	Chesapeake Bay	0.187	0.064	0.027	0.011	0.701	0.011	0.000	
	Delaware Bay	0.091	0.023	0.886	0.000	0.000	0.000	0.000	
2006									
<i>Number</i>	Coast	1	6	37	1	7	0	4	56
	Chesapeake Bay	27	8	11	1	61	0	0	108
	Delaware Bay	1	3	0	0	0	0	0	4
<i>Proportion</i>	Coast	0.018	0.107	0.661	0.018	0.125	0.000	0.071	
	Chesapeake Bay	0.250	0.074	0.102	0.009	0.565	0.000	0.000	
	Delaware Bay	0.250	0.750	0.000	0.000	0.000	0.000	0.000	

Table A5.6. Landings and tag recapture ratios (commercial: recreational) used in estimating total commercial discards for the Atlantic Coast in 2005 and 2006. The correction factors (CF) are used to adjust the tag return ratios for underreporting.

Year	Data	Chesapeake Bay			Coast			Delaware Bay					
		Commercial	Recreational	Ratio	CF	Commercial	Recreational	Ratio	CF	Commercial	Recreational	Ratio	CF
2003	landings	662,518	886,330	0.75		203,171	1,426,035	0.14		31,530	122,864	0.26	
	Killed tags discard tags	407 79	523 279	0.78 0.28	0.96	34 13	774 649	0.04 0.02	3.24	2 5	59 42	0.03 0.12	7.57
2004	landings	677,662	730,222	0.93		228,003	1,375,182	0.17		28,406	179,657	0.16	
	Killed tags discard tags	348 104	497 221	0.70 0.47	1.33	74 23	731 600	0.10 0.04	1.64	2 5	59 42	0.03 0.12	4.66
2005	landings	752,007	798,189	0.94		189,370	1,441,825	0.13		26,336	224,759	0.12	
	Killed tags discard tags	90 97	364 141	0.25 0.69	3.81	51 17	588 581	0.09 0.03	1.51	4 1	39 34	0.10 0.03	1.14
Three year mean of landings ratios (2003–2005)				0.87				0.15					0.18
Three year mean of landed tags ratios (2003–2005)				0.58				0.08					0.06
Correction factor				1.52				1.90					3.12

2006

Year	Data	Chesapeake Bay			Coast			Delaware Bay					
		Commercial	Recreational	Ratio	CF	Commercial	Recreational	Ratio	CF	Commercial	Recreational	Ratio	CF
2004	Landings	677,662	730,222	0.93		228,003	1,375,182	0.17		28,406	179,657	0.16	
	Landed tags Discard tags	348 104	497 221	0.70 0.47	1.3	74 23	731 600	0.10 0.04	1.6	2 5	59 42	0.03 0.12	4.7
2005	Landings	752,007	798,189	0.94		189,370	1,441,825	0.13		26,336	224,759	0.12	
	Landed tags Discard tags	90 97	364 141	0.25 0.69	3.8	51 17	588 581	0.09 0.03	1.5	4 1	39 34	0.10 0.03	1.1
2006	Landings	834,425	1,061,170	0.79		219,223	1,047,054	0.21		30,212	111,297	0.27	
	Landed tags Discard tags	97 11	293 186	0.33 0.06	2.4	42 14	627 548	0.07 0.03	3.1	2 2	33 38	0.06 0.05	4.5
Three year mean of landings ratios (2004–2006)				0.89				0.17					0.18
Three year mean of landed tags ratios (2004–2006)				0.43				0.086					0.066
Correction factor				2.1				2.0					2.0

Table A5.7. Estimate of total discards of striped bass by commercial fisheries.

2005		Bay	Coast	DELBAY
Rec Discard		5,074,723	13,395,246	224,841
Disc Tag Ratio		0.688	0.029	0.029
Adj Disc Tag Ratio		1.044	0.055	0.092
Commercial Discards		5,295,680	743,026	20647
2006		Ches Bay	Coast	DE Bay (D
Rec Discard		5,335,429	20,317,732	596,907
Disc Tag Ratio		0.059	0.026	0.053
Adj Disc Tag Ratio		0.123	0.051	0.107
Commercial Discards		655,620	1,030,721	63,830

Table A5.8. Total discards, gear-specific discard mortality and estimates of dead discards by gear type for 2005 and 2006.

		Total Discards							
	Anchor	Drift	Hook & Line	Other	Pound	Seine	Trawl		
2005									
Coast	92878	82558	340553	30959	103198	51599	41279		
Ches Bay	991170	339830	141596	56638	3709808	56638	0		
Del Bay	1877	469	18301	0	0	0	0		
2006									
Coast	18,406	110,434	681,012	18,406	128,840	0	73,623		
Ches Bay	163,905	48,564	66,776	6,071	370,304	0	0		
Del Bay	15,958	47,873	0	0	0	0	0		
		Gear-specific Discard Mortality							
	Anchor	Drift	Hook & Line	Other	Pound	Seine	Trawl		
	0.43	0.08	0.08	0.20	0.05	0.15	0.35		
		Dead Commercial Discards							
2005									
Coast	39,705	6,605	27,244	6,192	5,160	7,740	14,448	107,094	
Ches Bay	423,725	27,186	11,328	11,328	185,490	8,496	-	667,553	
Del Bay	802	38	1,464	-	-	-	-	2,304	
2006									
Coast	7,868	8,835	54,481	3,681	6,442	-	25,768	107,075	
Ches Bay	70,069	3,885	5,342	1,214	18,515	-	-	99,026	
Del Bay	6,822	3,830	-	-	-	-	-	10,652	

Table A5.9. Data sources for estimating striped bass age structure of commercial discards and discard mortality estimates applied to gear types in 2005 and 2006

Area	Gear	Data Source	Data Type	Conversion to Age
Coastal	Gill Net	NEFSC Observer Program—2005 & 2006	length-frequency	state age-length key
	Hook & Line	Hook & line discards MA compliance report—2005 & 2006	age structure	
	Pound Net	Trap net discards RI compliance report—2005 & 2006	age structure	
	Otter Trawl	NEFSC Observer Program—2005 & 2006	length-frequency	state age-length key
Chesapeake Bay	Anchor Gill Net	Fishery-independent sampling, James & Rappahannock Rivers VA compliance report—2005 & 2006	age structure	
	Drift Gill Net	Drift gill net harvest MD compliance report—2005 & 2006	age structure	
	Hook & Line	Hook & line and pound net harvest MD compliance report—2005 & 2006	age structure	
	Pound Net	Fishery-independent sampling, Rappahannock River VA compliance report—2005 & 2006	age structure	
Delaware Bay	Gill Net	NJ Delaware Bay tagging program USFWS coastwide tagging database	length-frequency	state age-length key

Table A5.10. Commercial dead discards apportioned into age classes, 2005 and 2006

Area	2005													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
Coast	0	474	5,687	4,201	9,159	15,558	15,382	16,699	10,990	12,551	8,626	4,546	1,098	2,123	107,094
Chesapeake Bay	0	0	5,146	95,856	227,822	148,594	51,815	37,026	31,955	30,564	14,125	11,369	6,929	6,353	667,554
Delaware Bay	116	154	137	316	407	278	203	160	223	106	114	71	7	11	2,303
Total	116	628	10,970	100,373	237,388	164,430	67,400	53,885	43,168	43,221	22,865	15,986	8,034	8,487	776,951

Area	2006													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
Coast	0	0	112	2339	2124	16642	19911	13286	15775	11161	10282	7522	3474	4446	107,075
Chesapeake Bay	0	0	452	23324	26533	21906	7232	3115	3340	3580	4840	1535	1479	1689	99,026
Delaware Bay	0	0	0	0	0	1667	5125	1506	894	402	373	104	343	238	10,652
Total	0	0	564	25,663	28,656	40,215	32,269	17,907	20,009	15,143	15,496	9,162	5,296	6,373	216,753

Table A5.11. MRFSS total number of interviews, total number of striped bass interviews, numbers of harvested striped bass measured, estimates of numbers harvested and released by state and for years 2000–2006. VAP=volunteer angler program, ALS=American Littoral Society.

State	Year	Total Interviews	Striped Bass Interviews		Striped Bass Harvested	PSE	Harvest		Additional Harvest Samples By VAP/State/ALS	Striped Bass Released Alive	PSE	Released Bass		Notes
			Striped Bass Interviews	Striped Bass Harvested			Length Samples By MRFSS	Length Samples				Length Samples Measured By VAP/State/ALS	Length Samples Measured By VAP/State/ALS	
ME	2000	1,717	450	62,186	14.3	92	882	942,593	15.2	7,133	Uses	1		
	2001	2,549	616	59,947	12.2	154	987	870,522	12.6	8,186	MA age-length Key	1		
	2002	2,167	726	71,907	11.4	117	500	1,392,200	10.2	4,819		1		
	2003	1,601	396	57,765	16.2	81	600	846,708	15.0	6,129		1		
	2004	1,580	382	36,886	17.0	75	615	748,388	14.9	7,238		1		
	2005	1,653	592	68,838	15.8	94	576	3,024,291	15.3	8,613		1		
	2006	1,357	648	73,385	18.4	58	383	4,070,305	13.8	7,684		1		
NH	2000	2,302	339	4,262	23.1	16	190	209,606	14.7	5,354	Uses	2		
	2001	2,390	278	15,291	17.0	52	603	164,336	13.7	4,269	MA age-length Key	2		
	2002	2,421	407	12,857	14.5	69	467	238,003	12.6	5,971		2		
	2003	2,888	340	24,878	15.9	96	239	260,167	13.7	3,544		2		
	2004	2,889	344	10,359	19.7	46	228	196,806	15.5	3,714		2		
	2005	2,992	414	26,026	21.2	50	178	512,771	15.1	3,868		2		
	2006	2,667	817	14,760	19.8	25	288	567,921	12.9	4,317		2		
MA	2000	5,708	1,732	181,295	9.2	62	0	7,382,031	6.4	961 (ALS)	1,805	3		
	2001	6,735	1,754	288,032	5.9	199	0	5,410,899	5.3	1,398 (ALS)	286	3		
	2002	5,296	1,417	308,749	6.7	262	0	5,718,984	5.9	2,093	661	4		
	2003	5,963	1,404	407,100	7.0	224	382	4,361,710	6.9	1,898	875	4		
	2004	4,493	1,125	400,252	9.6	138	367	5,891,661	8.0	2,448	735	4		
	2005	4,593	1,127	368,422	8.1	334	326	4,839,752	8.0	1,943	773	4		
	2006	5,043	2,038	345,105	8.8	250	149	8,662,771	6.6	1,241	655	4		
RI	2000	3,573	593	95,496	12.6	50	0	541,516	12.4	2,818	Uses	5		
	2001	4,103	499	80,125	10.5	132	0	377,474	12.3	2,349	MA-NY age-length keys	5		
	2002	4,232	583	78,190	9.4	175	0	530,402	14.2	2,262		5		
	2003	5,545	876	115,471	8.8	215	0	448,707	9.2	2,457		5		
	2004	5,193	719	84,814	10.4	125	0	669,975	13.6	2,544		5		
	2005	4,076	693	112,418	12.8	106	0	741,022	13.6	3,306		5		
	2006	3,442	1,036	75,279	13.4	38	0	1,357,084	15.2	4,306		5		
CT	2000	2,031	415	53,191	16.0	48	352	926,367	17.5	-	Uses NY age-length keys	6		
	2001	2,553	395	54,165	14.5	60	305	1,107,707	15.3	-		6		
	2002	2,287	341	51,060	17.3	36	269	696,976	13.6	3,382		6		
	2003	3,228	642	95,983	12.1	189	328	843,037	16.8	2,370		6		
	2004	2,171	502	75,244	16.6	83	215	1,079,304	18	2,679		6		
	2005	1,917	490	114,965	22.8	87	297	1,713,541	15.9	3,296		6		
	2006	1,478	240	83,776	16.3	63	271	1,683,242	18.9	4,360		6		

Table A5.11 cont.

State	Year	Total Interviews	Striped Bass Interviews		Striped Bass Harvested		Harvest Length Samples By MRFSS		Additional Harvest Samples By VAP/State/ALS		Striped Bass Released Alive		Released Bass Length Samples Measured By VAP/State/ALS		Number of Samples Aged (Har. +Rel.)		Notes
			Striped Bass Interviews	Striped Bass Harvested	PSE	Length Samples	Harvest Samples	VAP/State/ALS	Released Alive	PSE	VAP/State/ALS	Released Bass Length Samples Measured By VAP/State/ALS	Number of Samples Aged (Har. +Rel.)				
NY	2000	2,730	488	270,798	10.2	52	1,373,069	9.5	781*	1,373,069	5576 (ALS)	3,856	7				
	2001	4,188	452	189,714	8.7	72	824,278	9.7	909*	824,278	6037 (ALS)	2,263	7				
	2002	3,119	255	202,075	11.7	81	588,155	12.3	860*	588,155	5655 (ALS)	2,188	7				
	2003	4,990	444	313,761	7.9	174	1,083,808	11.1	684*	1,083,808	5235 (ALS)	2,385	7				
	2004	3,927	426	242,623	10.6	233	1,492,703	21.4	630*	1,492,703	4667 (ALS)	2,827	7				
	2005	3,919	506	298,387	12.1	366	1,348,377	12.2	777*	1,348,377	5595 (ALS)	2,417	7				
	2006	3,823	861	310,441	10.2	283	1,578,073	11.9	667*	1,578,073	6995 (ALS)	3,316	7				
NJ	2000	3,107	189	402,302	14.6	79	885,289	17.6	12,401	885,289	14,003	2,171	8				
	2001	7,180	592	560,208	7.5	360	965,650	11.1	21,514	965,650	19,254	1,570	8				
	2002	5,370	401	416,455	10	232	715,099	13.5	24,067	715,099	22,659	1,537	8				
	2003	7,156	526	391,842	8.3	347	925,885	11.3	26,101	925,885	26,905	2,952	8				
	2004	6,179	562	448,524	9.2	371	1,323,535	11.5	15,670	1,323,535	22,131	2,101	8				
	2005	5,644	623	327,616	11	351	1,197,440	11.6	8,871	1,197,440	18,527	1,875	8				
	2006	4,844	1,021	489,501	11.2	197	2,100,560	11	16,100	2,100,560	44,470	1,558	8				
DE	2000	3,293	261	39,543	16.0	126	151,838	14.6	0	151,838	0	0	8				
	2001	3,859	288	41,195	16.8	141	162,677	18.3	0	162,677	0	0	8				
	2002	4,493	385	29,149	13.6	181	114,650	11.6	0	114,650	0	0	8				
	2003	4,687	283	29,522	14.5	146	169,012	13.2	0	169,012	0	0	8				
	2004	4,324	372	25,178	15.4	284	151,179	12.8	0	151,179	106	106	8				
	2005	5,178	386	19,955	21.2	194	224,841	15	0	224,841	139	139	8				
	2006	4,211	542	18,679	18.1	108	245,304	13.8	0	245,304	0	0	8				
MD	2000	4,020	866	506,462	9.7	456	3,244,731	10.0	1,099	3,244,731	2,892	592	9				
	2001	3,629	753	382,557	10.0	348	2,890,054	11.2	406	2,890,054	835	880	9				
	2002	4,196	838	282,429	11.1	445	2,928,589	9.9	731	2,928,589	256	525	9				
	2003	4,355	1,167	525,191	8.1	837	4,652,800	9.1	1,349	4,652,800	1,305	615	9				
	2004	4,045	1,043	380,461	8.5	790	3,738,523	10.6	479	3,738,523	597	662	9				
	2005	4,054	999	490,275	9.5	1,250	3,753,328	12.1	1,023	3,753,328	809	715	9				
	2006	3,573	930	660,462	8.3	1,211	3,905,212	12.8	10,340	3,905,212	6,088	771	9				
VA	2000	3,174	350	335,259	12.8	293	1,022,040	12.8	0	1,022,040	0	0	9				
	2001	5,511	737	301,153	9.9	861	620,947	10.9	0	620,947	0	0	9				
	2002	4,695	497	321,470	11.7	624	706,729	13.0	0	706,729	0	0	9				
	2003	4,368	494	401,945	9.5	478	970,554	12.4	0	970,554	0	0	9				
	2004	4,645	756	477,402	8.4	708	1,767,596	10.3	0	1,767,596	0	0	9				
	2005	3,600	469	367,801	13.1	502	1,484,540	13.0	0	1,484,540	0	0	9				
	2006	3,693	1,121	528,190	9.5	661	1,695,963	13.0	0	1,695,963	0	0	9				

Table A5.11 cont.

State	Year	Total Interviews	Striped Bass Interviews	Striped Bass Harvested	Harvest Length Samples		Additional Harvest Samples By VAP/State/ALS	Striped Bass Released Alive	PSE	Released Bass Length Samples Measured By VAP/State/ALS	Number of Samples Aged (Har.+Rel.)	Notes
					By MRFSS	Harvest Length Samples By VAP/State/ALS						
NC	2000	17,849	282	12,908	24.4	201	0	129,729	15.7	0	0	
	2001	21,305	285	40,016	20.3	375	0	49,953	17.7	0	0	
	2002	17,840	293	33,610	31.2	486	0	63,269	20.6	0	0	
	2003	16,021	440	48,513	26.0	794	0	48,945	31.9	0	0	
	2004	15,703	776	278,270	17.6	2,131	0	230,356	19.2	0	0	
	2005	13,817	438	104,997	19.4	1,264	0	109,535	19.8	0	0	
	2006	15,227	417	90,820	21.7	557	0	82,973	19.9	0	0	

- 1 Volunteer Angler Program
- 2 released VAP measurements are both released & harvested combined; Harv. VAP # measured derived by multiplying 0.42 by the # of 28"+ fish measured (32"+ fish for 2000)
- 3 from Diet/Tagging Studies using Rod&Reel
- 4 from VAP/Tagging Study
- 5 Released bass length dist from ALS; ALK is combined MA-NY
- 6 VAP
- 7 * - VAP samples, not segregated by kept/released
- 8 Lengths (both harvested and released) from VAP and party/charter boat logbooks
Ages from harvested fish, spring gill net survey, ocean trawl survey
- 9 Lengths (both harvested and released) from VASand party/charter boat logbooks as well as creel survey
Ages from all spring gill net and harvested fish from creel survey, and sub-legals from poundnets

Table A5.12. Total recreational harvest (numbers, includes wave-1 harvest estimates for VA and NC) of striped bass along the Atlantic Coast by state, 1982–2006.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total
1982	929		83,933	1,757	50,081	21,278	58,294		984			217,256
1983	7,212	4,576	39,316	1,990	42,826	43,731	127,912	135	31,746		7,690	307,134
1984			3,481	1,230	5,678	57,089	13,625	16,571	16,789		3,530	117,993
1985	11,862		66,019	670	15,350	23,107	13,145		2,965	404	5,972	139,494
1986			29,434	3,291	1,760	27,477	36,999		14,077	1,585	953	115,576
1987		90	10,807	2,399	522	14,191	9,279		4,025	2,442		43,755
1988		647	21,050	5,226	2,672	20,230	12,141		133	24,259	6,141	92,499
1989	738		13,044	4,303	5,777	12,388	1,312				512	38,074
1990	2,912	617	20,515	4,677	6,082	24,799	44,878	2,009	736	56,017		163,242
1991	3,265	274	20,799	17,193	4,907	54,502	38,300	2,741	77,873	42,224	391	262,469
1992	6,357	2,213	57,084	14,945	9,154	45,162	41,426	2,400	99,354	21,118	1,317	300,530
1993	612	1,540	58,511	17,826	19,253	78,560	64,935	4,055	104,682	78,481	264	428,719
1994	3,771	3,023	74,538	5,915	16,929	87,225	34,877	4,140	199,378	127,945	7,930	565,671
1995	2,189	3,902	73,806	29,997	38,261	155,821	254,055	15,361	355,237	149,103	30,821	1,108,553
1996	1,893	6,461	68,300	60,074	62,840	225,428	127,952	22,867	337,415	250,731	35,996	1,199,957
1997	35,259	13,546	199,373	62,162	64,639	236,902	67,800	19,706	334,068	518,483	96,189	1,648,127
1998	38,094	5,929	207,952	44,890	64,215	166,868	88,973	18,758	391,824	383,786	45,768	1,457,057
1999	21,102	4,641	126,755	56,320	55,805	195,261	237,010	8,772	263,191	411,873	65,658	1,446,388
2000	62,186	4,262	181,295	95,496	53,191	270,798	402,302	39,543	506,462	389,126	20,452	2,025,113
2001	59,947	15,291	288,032	80,125	54,165	189,714	560,208	41,195	382,557	355,020	58,876	2,085,130
2002	71,907	12,857	308,749	78,190	51,060	202,075	416,455	29,149	282,429	411,248	109,052	1,973,171
2003	57,765	24,878	407,100	115,471	95,983	313,761	391,842	29,522	525,191	455,812	127,727	2,545,052
2004	36,886	10,359	400,252	84,814	75,244	242,623	448,524	25,178	380,461	633,018	278,270	2,615,629
2005	68,638	26,026	368,422	112,918	114,965	298,387	327,016	19,955	490,275	403,792	104,997	2,335,391
2006	73,385	14,760	345,105	75,279	83,776	310,441	489,501	18,679	660,462	612,334	90,820	2,774,542

Table A5.13. Total recreational harvest (numbers) of striped bass along the Atlantic Coast by age and by state, 2005 and 2006.

2005 State	Age													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13+	
ME	0	0	10,396	32,204	20,364	3,860	682	340	47	143	218	185	201	68,638
NH	0	0	0	295	2,964	5,565	6,251	6,077	3,553	1,120	153	40	8	26,026
MA	0	0	0	2,350	34,508	53,230	58,057	75,263	63,498	32,750	21,128	11,192	16,446	368,422
RI	0	0	0	465	3,861	8,510	11,999	18,660	21,979	14,758	12,606	8,119	11,960	112,918
CT	0	0	0	948	6,910	16,698	22,542	10,537	21,149	16,141	13,331	3,768	2,941	114,965
NY	0	0	0	3,864	22,774	42,077	50,868	25,652	50,321	39,216	34,455	17,342	11,818	298,387
NJ	0	0	0	29,415	68,958	50,265	30,896	34,369	35,050	22,347	34,027	3,672	18,018	327,016
DE	0	0	0	148	1,208	2,077	3,435	1,746	2,403	2,934	5,131	618	256	19,955
MD	0	342	26,503	95,850	106,113	45,436	38,519	26,061	42,051	34,298	35,952	21,677	17,473	490,275
VA	0	0	3,697	85,253	65,988	49,754	42,895	31,300	47,780	33,399	22,831	10,306	10,589	403,792
NC	0	0	0	0	0	0	1,073	8,878	26,768	34,211	19,764	7,863	6,439	104,997
Total	0	342	40,597	250,792	333,647	277,472	267,216	238,884	314,599	231,318	199,596	84,781	96,147	2,335,391

2006 State	Age													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13+	
ME	0	0	8,709	11,722	35,478	14,798	1,760	2,199	13	13	275	186	430	73,385
NH	0	0	0	0	1,467	3,114	1,799	2,199	1,528	1,969	1,250	664	770	14,760
MA	0	0	0	0	11,558	32,235	26,771	43,404	44,581	69,177	50,245	30,376	36,757	345,104
RI	0	0	0	806	9,085	11,997	9,364	12,382	8,657	9,750	7,099	3,452	2,688	75,279
CT	0	0	0	658	4,599	10,904	15,210	6,343	15,697	11,870	9,281	3,155	6,060	83,776
NY	0	0	0	7,530	55,500	64,912	37,289	42,998	26,998	34,832	21,297	13,128	5,955	310,441
NJ	0	0	0	4,615	25,036	51,240	82,537	71,058	68,643	76,010	53,236	32,312	24,818	489,504
DE	0	0	0	406	2,044	2,284	2,895	2,190	2,016	2,884	1,786	1,361	815	18,680
MD	0	9,430	69,790	102,755	174,591	68,894	28,592	31,184	40,461	49,265	34,615	23,490	36,825	660,462
VA	0	0	33,943	88,366	86,584	92,170	39,661	40,569	49,628	77,917	43,324	20,834	29,909	612,335
NC	0	0	0	0	0	0	1,648	8,672	16,939	22,344	20,368	11,591	9,259	90,820
Total	0	9,430	112,442	216,858	405,942	352,548	247,525	260,998	275,161	356,029	242,776	140,550	154,285	2,774,546

Table A5.14. MRFSS estimates of release (B2) numbers of striped bass by year and state, 1982–2006.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total
1982	687	0	6,441	2,551	643,187	12,297	87,648	0	30,376	0	0	783,187
1983	0	0	34,018	5,444	0	1,469	117,807	0	213,487	11,997	0	384,222
1984	1,887	0	98,405	85,135	31,176	40,469	52,930	0	104,095	8,775	3,530	426,402
1985	81,153	93	12,360	40,567	26,946	57,540	5,524	702	147,103	2,598	0	374,586
1986	4,379	0	442,298	2,014	10,494	123,842	0	0	390,063	7,528	12,032	992,650
1987	18,106	435	93,660	63,849	78,434	253,986	56,697	16,988	118,395	7,611	12,877	708,161
1988	4,528	6,699	209,632	23,347	25,532	92,611	486,306	2,455	132,250	5,631	0	1,001,868
1989	16,028	4,822	193,067	38,007	125,370	365,712	265,958	4,807	114,269	72,766	0	1,200,806
1990	12,542	15,518	339,511	67,509	89,490	265,099	254,384	14,411	420,084	175,046	0	1,653,594
1991	67,490	6,559	448,735	30,975	301,476	756,663	166,198	38,334	1,036,011	208,350	481	3,061,272
1992	31,177	27,613	779,814	120,410	292,259	799,149	413,506	36,932	749,959	115,899	1,342	3,368,060
1993	373,064	14,979	833,566	100,993	271,318	694,107	308,253	89,543	1,556,848	100,374	2,161	4,345,206
1994	363,703	43,501	2,102,514	138,989	489,967	1,132,707	568,047	103,992	2,785,392	197,022	9,120	7,934,954
1995	505,758	285,486	3,280,882	356,324	507,124	1,209,585	694,889	115,363	2,401,277	370,949	31,306	9,758,943
1996	1,626,705	292,820	3,269,746	314,336	1,051,612	1,436,091	776,165	99,372	2,545,238	759,916	262,555	12,434,556
1997	1,417,976	279,298	5,417,751	606,746	722,708	1,018,892	736,734	130,073	4,019,987	1,232,323	302,320	15,884,808
1998	691,378	243,301	7,184,358	613,421	1,026,192	884,626	488,319	185,016	2,641,680	796,372	421,273	15,175,936
1999	649,816	145,730	4,576,208	360,121	704,025	1,228,628	1,152,682	105,696	2,387,615	940,755	521,410	12,772,686
2000	942,593	209,606	7,382,031	541,516	926,367	1,373,069	885,289	151,838	3,244,731	1,022,040	252,440	16,931,520
2001	870,522	164,336	5,410,899	377,474	1,107,707	824,278	965,650	162,677	2,890,054	620,947	118,664	13,513,208
2002	1,392,200	238,003	5,718,984	530,402	696,976	588,155	715,099	114,650	2,928,589	706,729	154,705	13,784,492
2003	846,708	260,167	4,361,710	448,707	843,037	1,083,808	925,885	169,012	4,652,800	970,554	284,754	14,847,142
2004	748,388	196,806	5,891,661	669,975	1,079,304	1,492,703	1,323,535	151,179	3,738,523	1,767,596	230,356	17,290,026
2005	3,024,291	512,771	4,839,752	741,022	1,713,541	1,348,377	1,197,440	224,841	3,753,328	1,484,540	109,535	18,949,438
2006	4,070,305	567,921	8,662,771	1,357,084	1,683,242	1,578,073	2,100,560	245,304	3,905,212	1,695,963	37,734	25,904,169

Table A5.15. Estimates of dead releases from the striped bass recreational fishery by year and state, 1982–2006

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total
1982	55	0	515	204	51,455	984	7,012	0	2,430	0	0	62,655
1983	0	0	2,721	436	0	118	9,425	0	17,079	960	0	30,738
1984	151	0	7,872	6,811	2,494	3,238	4,234	0	8,328	702	282	34,112
1985	6,492	7	989	3,245	2,156	4,603	442	56	11,768	208	0	29,967
1986	350	0	35,384	161	840	9,907	0	0	31,205	602	963	79,412
1987	1,448	35	7,493	5,108	6,275	20,319	4,536	1,359	9,472	609	0	56,653
1988	362	536	16,771	1,868	2,043	7,409	38,904	196	10,580	450	1,030	80,149
1989	1,282	386	15,445	3,041	10,030	29,257	21,277	385	9,142	5,821	0	96,064
1990	1,003	1,241	27,161	5,401	7,159	21,208	20,351	1,153	33,607	14,004	0	132,288
1991	5,399	525	35,899	2,478	24,118	60,533	13,296	3,067	82,881	16,668	38	244,901
1992	2,494	2,209	62,385	9,633	23,381	63,932	33,080	2,955	59,997	9,272	107	269,444
1993	29,845	1,198	66,685	8,079	21,705	55,529	24,660	7,163	124,548	8,030	173	347,617
1994	29,096	3,480	168,201	11,119	39,197	90,617	45,444	8,319	222,831	15,762	730	634,797
1995	40,461	22,839	262,471	28,506	40,570	96,767	55,591	9,229	192,102	29,676	2,504	780,715
1996	130,136	23,426	261,580	25,147	84,129	114,887	62,093	7,950	203,619	60,793	21,004	994,764
1997	113,438	22,344	433,420	48,540	57,817	81,511	58,939	10,406	321,599	98,586	24,186	1,270,785
1998	55,310	19,464	574,749	49,074	82,095	70,770	39,066	14,801	211,334	63,710	33,702	1,214,075
1999	51,985	11,658	366,097	28,810	56,322	98,290	92,215	8,456	191,009	75,260	41,713	1,021,815
2000	75,407	16,768	590,562	43,321	74,109	109,846	70,823	12,147	259,578	81,763	20,195	1,354,521
2001	69,642	13,147	432,872	30,198	88,617	65,942	77,252	13,014	231,204	49,676	9,493	1,081,057
2002	111,376	19,040	457,519	42,432	55,758	47,052	57,208	9,172	234,287	56,538	12,376	1,102,759
2003	67,737	20,813	348,937	35,897	67,443	86,705	74,071	13,521	372,224	77,644	22,780	1,187,771
2004	59,871	15,744	471,333	53,598	86,344	119,416	105,883	12,094	299,082	141,408	18,428	1,383,202
2005	241,943	41,022	387,180	59,282	137,083	107,870	95,795	17,987	300,266	118,763	8,763	1,515,955
2006	325,624	45,434	693,022	108,567	134,659	126,246	168,045	19,624	312,417	135,677	3,019	2,072,334

Table A5.16. Total recreational dead discards (numbers) of striped bass along the Atlantic Coast by age and by state, 2005 and 2006

2005 State	Age													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
ME	0	0	43,368	65,239	78,653	33,280	9,269	4,165	3,756	2,367	1,005	435	208	198	241,943
NH	0	0	13,278	7,133	10,027	6,484	2,038	715	551	342	184	104	66	99	41,022
MA	0	0	63,042	58,533	99,799	79,088	31,005	15,771	16,133	11,524	5,517	2,857	1,657	2,253	387,180
RI	0	182	25,261	4,806	9,788	7,837	3,982	2,514	1,649	1,315	694	512	267	477	59,282
CT	69	2,310	47,579	12,246	32,133	14,856	7,454	5,992	2,419	4,826	3,365	2,544	703	589	137,083
NY	0	110	34,834	10,287	30,485	13,421	4,691	3,569	1,672	3,049	2,321	2,040	1,027	365	107,870
NJ	6	208	7,975	11,409	25,597	19,483	7,635	7,991	5,767	5,153	1,797	1,969	122	682	95,795
DE	0	8,132	580	1,488	1,692	2,823	410	580	544	591	595	270	179	104	17,987
MD	0	7,193	135,950	48,116	58,836	23,165	5,573	4,906	3,760	4,742	3,039	2,539	1,738	708	300,266
VA	0	0	70,853	14,396	20,607	5,813	1,447	1,541	823	1,101	566	875	544	197	118,763
NC	0	105	2,574	1,358	2,137	1,199	427	278	216	204	111	82	38	33	8,763
Total	75	18,240	445,293	235,013	369,756	207,448	73,931	48,022	37,289	35,214	19,194	14,225	6,549	5,705	1,515,954

2006 State	Age													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
ME	0	0	19,839	200,717	42,932	36,686	16,820	2,959	1,849	1,147	1,184	771	342	379	325,624
NH	0	0	3,407	26,485	5,138	6,078	3,006	476	229	165	184	117	63	86	45,434
MA	0	0	30,649	291,125	79,370	138,094	89,946	18,457	12,147	9,464	11,359	6,486	3,330	2,594	693,021
RI	0	852	17,704	53,907	7,680	16,082	6,798	2,529	1,431	743	388	250	104	97	108,567
CT	0	3,050	25,993	62,401	8,039	15,567	7,408	3,028	2,776	1,984	1,136	1,227	693	1,360	134,659
NY	0	213	8,757	58,721	12,237	23,589	8,374	3,827	3,236	1,940	2,411	1,481	903	554	126,246
NJ	15	340	6,632	44,840	25,896	49,021	19,584	7,049	4,371	3,061	3,293	2,006	1,150	788	168,045
DE	0	65	1,022	5,451	3,713	5,555	1,758	718	397	225	268	193	112	147	19,624
MD	0	17,232	65,843	131,574	26,917	16,711	12,000	7,257	8,698	8,630	9,672	3,998	2,300	1,584	312,417
VA	0	12,003	36,071	63,079	10,020	7,060	2,353	1,023	957	605	614	937	370	585	135,677
NC	0	51	307	1,360	333	454	247	70	54	43	47	27	14	12	3,019
Total	15	33,806	216,225	939,659	222,275	314,898	168,294	47,393	36,146	28,007	30,555	17,494	9,382	8,185	2,072,333

Table A5.17. Total removals (harvest and dead releases) by the recreational fishery in 2005 and 2006

2005 State	Age													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
ME	0	0	43,368	75,635	110,857	53,644	13,130	4,846	4,096	2,414	1,148	652	393	399	310,581
NH	0	0	13,278	7,133	10,323	9,448	7,603	6,966	6,628	3,895	1,304	257	106	107	67,048
MA	0	0	63,042	58,533	102,149	113,596	84,235	73,828	91,396	75,023	38,267	23,984	12,849	18,699	755,602
RI	0	182	25,261	4,806	10,253	11,699	12,492	14,513	20,308	23,294	15,453	13,118	8,385	12,437	172,200
CT	69	2,310	47,579	12,246	33,081	21,765	24,152	28,534	12,955	25,975	19,505	15,875	4,471	3,531	252,048
NY	0	110	34,834	10,287	34,350	36,195	46,768	54,437	27,324	53,370	41,537	36,494	18,369	12,183	406,257
NJ	6	208	7,975	11,409	55,012	88,441	57,900	38,887	40,137	40,203	24,144	35,996	3,794	18,700	422,811
DE	0	8,132	580	1,488	1,840	4,031	2,487	4,015	2,290	2,994	3,529	5,400	797	359	37,942
MD	0	7,193	136,292	74,619	154,686	129,277	51,010	43,426	29,821	46,793	37,337	38,491	23,416	18,180	790,541
VA	0	0	70,853	18,094	105,861	71,801	51,201	44,436	32,123	48,881	33,965	23,706	10,850	10,786	522,555
NC	0	105	2,574	1,358	2,137	1,199	427	1,350	9,094	26,972	34,322	19,846	7,901	6,472	113,760
Total	75	18,240	445,635	275,610	620,548	541,095	351,404	315,239	276,173	349,813	250,511	213,821	91,330	101,852	3,851,345

2006 State	Age													Total	
	0	1	2	3	4	5	6	7	8	9	10	11	12		13+
ME	0	0	19,839	209,426	54,654	72,164	31,618	4,719	1,849	1,160	1,197	1,045	529	809	399,009
NH	0	0	3,407	26,485	5,138	7,545	6,120	2,275	2,428	1,693	2,153	1,368	727	856	60,194
MA	0	0	30,649	291,125	79,370	149,652	122,181	45,228	55,551	54,045	80,536	56,731	33,706	39,351	1,038,125
RI	0	852	17,704	53,907	8,486	25,167	18,795	11,893	13,813	9,400	10,138	7,349	3,556	2,784	183,846
CT	0	3,050	25,993	62,401	8,697	20,165	18,312	18,238	9,119	17,680	13,006	10,508	3,848	7,420	218,435
NY	0	213	8,757	58,721	19,767	79,089	73,287	41,116	46,235	28,939	37,243	22,779	14,031	6,509	436,687
NJ	15	340	6,632	44,840	30,511	74,057	70,824	89,586	75,429	71,704	79,302	55,242	33,462	25,606	657,549
DE	0	65	1,022	5,451	4,119	7,599	4,042	3,613	2,587	2,241	3,152	1,978	1,473	962	38,304
MD	0	17,232	65,843	201,363	129,673	191,302	80,893	35,849	39,883	49,091	58,936	38,614	25,791	38,409	972,879
VA	0	12,003	45,501	97,022	98,385	93,645	94,522	40,684	41,525	50,233	78,531	44,261	21,204	30,494	748,012
NC	0	51	307	1,360	333	454	247	1,717	8,726	16,981	22,390	20,395	11,606	9,271	93,839
Total	15	33,806	225,655	1,052,102	439,133	720,840	520,842	294,919	297,145	303,168	386,584	260,270	149,932	162,470	4,846,879

Table A5.18. Total removals (thousands of fish) – including recreational and commercial harvest and dead discards – of striped bass along the Atlantic Coast by age, 1982–2006

Year	Age													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13+	
1982	1.8	105.6	256.7	220.8	58.4	19.2	24.2	16.8	11.7	10.6	11.0	13.7	15.7	766.2
1983	3.6	110.3	178.2	193.1	150.0	39.3	18.7	4.1	2.9	3.7	4.6	5.6	13.6	727.7
1984	5.6	542.8	302.7	82.4	60.4	51.7	18.3	4.7	2.1	2.1	0.7	0.3	11.1	1084.9
1985	1.3	72.5	102.0	40.5	58.7	43.1	43.5	17.3	6.4	3.4	1.0	0.8	10.3	400.8
1986	11.3	21.0	63.8	132.9	49.9	32.0	20.4	24.0	9.2	5.3	3.4	1.6	10.1	384.9
1987	1.4	10.9	37.6	51.4	67.3	25.0	13.2	6.5	6.4	3.0	1.5	2.0	12.9	239.1
1988	2.6	30.9	41.8	63.2	107.1	97.9	40.6	24.4	14.0	5.8	3.7	3.3	9.6	444.9
1989	0.7	36.0	79.7	68.2	104.9	95.4	45.7	21.0	10.4	3.8	3.2	2.0	8.9	479.9
1990	2.1	46.2	124.5	187.8	173.2	165.2	104.1	67.9	20.7	7.3	5.1	3.5	13.7	921.3
1991	1.8	72.8	145.3	208.7	162.0	101.4	91.3	82.9	58.8	24.1	14.2	2.8	22.3	988.4
1992	2.9	45.8	199.7	189.2	177.1	109.5	62.4	67.8	58.4	44.8	9.3	4.1	15.9	986.9
1993	0.3	69.6	185.3	327.3	288.5	185.4	86.6	67.3	82.6	76.2	41.1	9.3	17.5	1437.0
1994	5.7	145.4	348.8	290.6	367.8	232.4	135.4	86.7	99.9	81.0	36.0	22.3	14.6	1866.6
1995	4.1	433.5	470.8	456.1	405.3	489.9	214.5	196.0	153.8	90.6	53.4	17.5	14.2	2999.7
1996	1	98.8	649.4	650.1	542.9	468.7	442.2	209.6	136.8	68.9	42.5	46.3	19.0	3376.2
1997	3.3	291.5	602.0	971.2	685.3	655.7	458.6	415.7	223.5	140.6	70.0	34.0	28.7	4580.1
1998	26.4	183.4	485.4	706.7	1125.0	510.9	280.4	265.0	215.5	113.8	95.1	45.2	65.5	4118.3
1999	8.4	108.3	419.6	648.8	642.2	730.2	351.8	238.9	205.4	148.4	104.5	48.6	49.2	3704.3
2000	37.95	321.5	417.7	984.5	1020.0	781.6	744.0	313.7	161.3	142.0	59.8	29.4	30.9	5044.4
2001	31.53	156.4	432.2	598.4	832.9	700.7	579.7	484.1	206.5	120.1	103.4	49.8	48.2	4344.0
2002	24.5	201.5	224.5	252.4	450.1	654.0	670.8	499.9	342.9	260.7	110.0	86.7	111.5	3889.5
2003	28.32	252.5	479.7	599.6	708.1	603.7	707.4	494.9	374.8	284.5	128.0	81.0	93.8	4836.2
2004	70.29	176.9	797.1	740.9	510.9	541.2	517.0	628.6	440.3	330.9	264.7	123.5	130.3	5272.7
2005	18.87	456.7	419.4	1097.6	957.1	519.9	425.2	374.9	467.3	323.5	271.3	125.3	139.1	5596.3
2006	33.81	226.3	1168.6	660.4	1096.7	702.4	360.4	359.8	363.9	462.9	308.7	178.0	191.5	6113.2

Table A5.19. Catch mean weights (kg) at age for striped bass, 1982–2006

Year	Age												
	1	2	3	4	5	6	7	8	9	10	11	12	13+
1982	0.1	0.6	1.1	1.5	2.4	3.8	4.8	5.8	6.2	8.7	10.8	11.2	14.1
1983	0.2	0.6	0.9	1.4	2.4	3.3	3.8	5.4	6.0	8.1	9.6	10.4	11.1
1984	0.2	0.6	1.7	1.6	2.7	3.4	5.1	5.7	6.8	7.8	8.4	12.7	12.4
1985	0.1	0.6	1.1	1.7	2.2	3.6	4.9	5.5	6.8	7.5	9.0	10.7	13.9
1986	0.1	0.6	1.3	2.4	2.4	3.1	4.0	5.1	5.4	6.1	7.8	9.2	12.8
1987	0.2	0.8	1.4	2.1	2.5	2.9	3.6	4.7	5.5	6.5	7.8	9.8	13.2
1988	0.3	0.9	1.1	2.0	3.1	4.0	4.4	4.7	5.2	5.6	8.6	10.4	13.3
1989	0.2	0.8	1.2	2.2	3.1	4.5	5.4	6.2	6.0	8.7	8.9	9.7	13.4
1990	0.1	0.9	1.1	2.1	2.4	3.8	4.9	6.0	5.7	6.0	7.4	9.1	12.6
1991	0.2	0.9	1.3	2.2	2.6	3.2	4.8	5.6	6.5	6.2	9.5	8.3	14.2
1992	0.1	0.7	1.3	1.9	2.8	3.7	4.9	5.8	7.0	8.2	9.8	12.4	14.0
1993	0.1	0.8	1.3	2.0	2.8	3.6	4.8	6.1	7.0	8.0	9.5	10.8	14.6
1994	0.2	1.1	1.7	2.2	2.9	3.5	4.9	6.2	6.8	7.5	9.7	10.7	12.7
1995	0.3	0.7	1.4	2.2	2.8	3.7	5.4	6.2	7.3	8.9	7.6	9.7	16.7
1996	0.1	1.1	1.5	2.3	3.2	4.5	6.4	7.1	7.8	9.2	9.3	10.1	13.7
1997	0.1	0.6	1.2	2.5	2.8	3.6	4.5	5.1	6.7	9.2	9.9	10.2	14.8
1998	0.4	0.8	1.2	1.6	2.3	3.0	4.7	5.7	6.8	7.0	7.8	9.9	11.9
1999	0.6	0.9	1.1	1.4	1.9	2.5	3.4	5.0	6.6	7.9	8.7	9.8	12.0
2000	0.4	0.6	1.1	1.5	2.0	2.8	3.9	5.1	7.1	7.4	9.7	10.7	13.6
2001	0.2	0.4	1.1	1.8	2.2	3.3	4.1	5.0	6.4	7.8	8.7	8.3	10.9
2002	0.1	0.3	1.1	1.5	2.2	3.2	4.2	5.5	6.0	7.6	9.1	9.8	11.5
2003	0.1	0.6	1.0	1.4	2.2	3.2	4.1	5.2	6.1	7.2	8.5	9.4	11.0
2004	0.2	0.3	0.8	1.4	2.4	3.1	4.1	5.2	6.1	7.1	8.2	9.0	10.7
2005	0.1	0.6	1.0	1.6	2.2	3.2	4.0	5.6	6.2	6.7	8.0	8.9	11.7
2006	0.2	0.5	0.8	1.3	2.0	2.8	4.1	4.9	6.2	7.0	8.1	9.0	11.1

Table A6.1. Summary of surveys currently available for use in stock assessment models.

State	Index	Design	Time of Year	What Stock?	Ages	ADAPT VPA Tuned To
Massachusetts Commercial	Total Catch Rate Index	None	July-Aug	Mixed	2-13+	Mean current year
Connecticut Recreational CPUE	Total Catch Rate Index	MRFSS	May-Dec	Mixed	2-13+	Mean current year
Marine Recreational Fisheries Survey	Total Catch Rate Index	Stratified Random	May-Dec	Mixed	Aggregate (3-13+)	Mean current year
Connecticut Trawl Survey	Mean number per tow	Stratified Random	April-June	Mixed	Aggregate (2-4)	1-Jan current year
NEFSC Trawl Survey	Mean number per tow	Stratified Random	March-May	Mixed	Aggregate (2-9)	1-Jan current year
New Jersey Trawl Survey	Mean number per tow	Stratified Random	April	Mixed	2-13+	1-Jan current year
New York Ocean Haul Seine Survey	Mean number per haul	Random	Sept-Nov	Mixed	2-13+	1-Jan following year
Maryland Gillnet Survey	Mean number per set	Stratified Random	April-May	Chesapeake	2-13+	1-Jan current year
Delaware Electrofishing Survey	Mean number per hour	Lattice	April-May	Delaware	2-13+	1-Jan current year
New York YOY Seine Survey	Mean number per haul	Fixed	July-Nov	Hudson	0	1-Jan following year
New York W. Long Island Seine Survey	Mean number per haul	Fixed	May-Oct	Hudson	1	1-Jan following year
New Jersey YOY Seine Survey	Mean number per haul	Fixed/Random	Aug-Oct	Delaware	0	1-Jan following year
Virginia YOY Seine Survey	Mean number per haul	Fixed	July-Sept	Chesapeake	0	1-Jan following year
Maryland YOY and Age 1 Seine Survey	Mean number per haul	Fixed	July-Sept	Chsapeake	0-1	1-Jan following year

Table A6.2. Available indices of striped bass relative abundance, 1982–2006.

Massachusetts Commercial Total CPUE (MACOMM)

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982						0.083	0.131	0.142	0.087	0.020	0.009	0.067
1983	0.018	0.038	0.081	0.077	0.077	0.083	0.173	0.205	0.133	0.030	0.014	0.074
1984	0.001	0.015	0.038	0.047	0.060	0.083	0.098	0.193	0.174	0.080	0.017	0.090
1985	0.006	0.013	0.029	0.057	0.064	0.063	0.086	0.163	0.170	0.090	0.033	0.072
1986	0.008	0.015	0.028	0.052	0.077	0.063	0.173	0.174	0.163	0.105	0.058	0.081
1987	0.006	0.009	0.019	0.028	0.057	0.097	0.223	0.212	0.185	0.099	0.053	0.070
1988	0.011	0.019	0.030	0.033	0.065	0.115	0.263	0.123	0.141	0.085	0.042	0.064
1989	0.013	0.030	0.040	0.040	0.070	0.118	0.191	0.177	0.106	0.089	0.034	0.067
1990	0.018	0.031	0.059	0.076	0.087	0.118	0.092	0.183	0.177	0.098	0.064	0.099
1991	0.001	0.022	0.027	0.044	0.080	0.072	0.141	0.213	0.188	0.098	0.043	0.068
1992	0.005	0.019	0.034	0.047	0.092	0.152	0.170	0.123	0.062	0.069	0.029	0.046
1993	0.012	0.068	0.092	0.125	0.113	0.203	0.155	0.109	0.065	0.065	0.039	0.101
1994	0.012	0.032	0.062	0.081	0.217	0.139	0.163	0.155	0.087	0.049	0.046	0.049
1995	0.006	0.026	0.050	0.092	0.101	0.220	0.278	0.132	0.088	0.059	0.026	0.051
1996	0.000	0.018	0.054	0.100	0.160	0.210	0.187	0.173	0.094	0.063	0.039	0.046
1997	0.003	0.018	0.064	0.129	0.108	0.106	0.137	0.123	0.175	0.124	0.070	0.090
1998	0.001	0.024	0.017	0.104	0.132	0.098						

Table A6.2 cont.

Connecticut Recreational CPUE (CTCPUE)

Year	Age												
	2	3	4	5	6	7	8	9	10	11	12	13+	
1982	0.33	0.21	0.11	0.09	0.08	0.04	0.02	0.01	0.01	0.00	0.00	0.00	
1983	0.40	0.19	0.08	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
1984	0.12	0.33	0.23	0.14	0.05	0.04	0.01	0.00	0.00	0.00	0.00	0.00	
1985	0.06	0.32	0.22	0.12	0.09	0.04	0.03	0.01	0.00	0.00	0.00	0.00	
1986	0.08	0.20	0.47	0.45	0.18	0.05	0.01	0.05	0.02	0.00	0.00	0.01	
1987	0.04	0.24	0.34	0.20	0.14	0.06	0.04	0.03	0.03	0.01	0.00	0.01	
1988	0.02	0.52	0.28	0.18	0.15	0.12	0.05	0.03	0.01	0.00	0.00	0.00	
1989	0.27	0.48	0.47	0.16	0.18	0.13	0.09	0.03	0.02	0.01	0.00	0.00	
1990	0.17	0.58	0.56	0.27	0.12	0.13	0.15	0.13	0.05	0.02	0.01	0.01	
1991	0.15	0.67	0.43	0.35	0.14	0.07	0.09	0.13	0.09	0.03	0.01	0.00	
1992	0.17	0.48	0.57	0.29	0.23	0.11	0.10	0.16	0.15	0.09	0.02	0.01	
1993	0.07	0.70	0.62	0.49	0.28	0.22	0.10	0.08	0.11	0.10	0.05	0.03	
1994	0.21	0.61	0.88	0.46	0.57	0.36	0.23	0.16	0.20	0.14	0.07	0.06	
1995	0.60	1.20	1.34	0.59	0.59	0.32	0.18	0.19	0.19	0.12	0.05	0.03	
1996	0.47	1.09	2.39	0.90	0.84	0.38	0.60	0.37	0.23	0.10	0.08	0.13	
1997	0.18	1.11	1.28	1.64	0.58	0.31	0.23	0.21	0.12	0.06	0.07	0.20	
1998	0.21	2.29	1.53	0.74	1.59	0.43	0.21	0.17	0.20	0.03	0.10	0.07	
1999	0.38	0.43	1.28	0.37	0.39	0.60	0.62	0.41	0.24	0.42	0.21	0.18	
2000	0.00	0.01	0.65	1.04	1.11	2.46	0.55	0.30	0.30	0.23	0.15	0.07	
2001	0.89	0.67	0.56	2.24	1.12	0.67	0.65	0.41	0.05	0.08	0.12	0.10	
2002	1.41	1.13	0.58	1.61	0.22	0.20	0.26	0.19	0.06	0.05	0.04	0.12	
2003	1.33	1.36	0.63	0.75	0.41	0.39	0.38	0.34	0.28	0.17	0.06	0.25	
2004	1.07	2.45	1.75	0.62	0.65	0.32	0.50	0.32	0.17	0.18	0.08	0.04	
2005	4.67	1.16	3.11	1.47	0.71	0.57	0.23	0.48	0.38	0.23	0.08	0.04	
2006	2.25	6.05	0.97	1.73	0.94	0.42	0.38	0.27	0.17	0.10	0.11	0.16	

Table A6.2 cont.

MRFSS	
Year	Ages 2-13+
1982	
1983	
1984	
1985	
1986	
1987	
1988	0.36
1989	0.27
1990	0.24
1991	0.41
1992	0.75
1993	0.61
1994	0.91
1995	1.17
1996	1.33
1997	1.37
1998	1.71
1999	1.61
2000	1.51
2001	1.26
2002	1.05
2003	0.93
2004	1.01
2005	1.17
2006	1.39

Table A6.2 cont.

Year	NEFSC (Ages 2-9)		Connecticut Trawl (CTTRL) Ages 4-6	
	Geometric	Arithmetic	Geometric	Arithmetic
1982				
1983				
1984			0.02	0.00
1985			0.00	0.00
1986			0.00	0.00
1987			0.05	0.10
1988			0.04	0.10
1989			0.06	0.10
1990			0.16	0.40
1991	0.235	0.258	0.15	0.30
1992	0.237	0.247	0.22	0.40
1993	0.481	0.634	0.27	0.50
1994	1.394	3.441	0.30	0.50
1995	0.952	1.101	0.59	1.30
1996	0.602	0.807	0.63	1.50
1997	1.182	1.373	0.85	2.00
1998	0.729	0.81	0.97	3.00
1999	0.448	0.767	1.10	2.80
2000	1.274	1.409	0.84	1.90
2001	0.623	0.795	0.61	1.50
2002	0.981	1.156	1.30	3.50
2003	0.774	1.049	0.87	1.70
2004	0.335	0.359	0.56	1.10
2005	0.293	0.312	1.17	3.50
2006	0.628	0.792	0.61	1.20

Table A6.2 cont.

New Jersey Bottom Trawl Survey (NJTRL)

Geometric

Age

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982												
1983												
1984												
1985												
1986												
1987												
1988												
1989	0.06	0.10	0.00	0.03	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
1990	0.07	0.21	0.02	0.47	0.15	0.03	0.11	0.01	0.07	0.00	0.00	0.00
1991	0.39	0.40	0.03	0.03	0.21	0.19	0.02	0.05	0.06	0.03	0.00	0.00
1992	0.17	0.31	0.04	0.04	0.04	0.05	0.01	0.00	0.00	0.00	0.00	0.00
1993	0.16	0.24	0.10	0.06	0.08	0.02	0.02	0.00	0.00	0.00	0.00	0.00
1994	0.42	0.54	0.23	0.13	0.07	0.05	0.02	0.01	0.00	0.00	0.00	0.00
1995	2.77	0.73	0.28	0.19	0.13	0.05	0.03	0.02	0.01	0.00	0.00	0.00
1996	0.91	3.28	0.91	0.34	0.12	0.07	0.02	0.00	0.00	0.00	0.00	0.00
1997	1.09	2.38	1.37	0.66	0.20	0.07	0.03	0.01	0.02	0.00	0.00	0.00
1998	2.22	0.97	0.21	0.65	0.43	0.27	0.13	0.07	0.06	0.01	0.01	0.00
1999	0.27	1.12	0.64	0.90	0.40	0.11	0.04	0.02	0.01	0.00	0.00	0.00
2000	0.81	0.74	0.83	1.46	0.89	0.39	0.14	0.03	0.01	0.01	0.00	0.00
2001	0.23	0.26	0.31	0.47	0.16	0.07	0.04	0.02	0.01	0.00	0.00	0.00
2002	0.01	0.05	0.15	0.44	0.77	0.49	0.16	0.05	0.01	0.00	0.00	0.00
2003	2.08	1.62	0.28	0.86	0.66	0.83	0.34	0.10	0.04	0.01	0.01	0.00
2004	1.10	3.14	0.54	0.24	0.35	0.26	0.22	0.13	0.05	0.02	0.01	0.00
2005	3.16	1.40	0.39	0.68	0.30	0.27	0.12	0.06	0.02	0.01	0.00	0.00
2006	0.16	0.26	0.14	0.64	0.67	0.26	0.18	0.12	0.12	0.03	0.02	0.00

Table A6.2 cont.

New Jersey Bottom Trawl Survey (NJTRL)

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982	0.08	0.12	0.00	0.04	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00
1983	0.12	0.36	0.04	0.81	0.26	0.06	0.19	0.01	0.12	0.00	0.00	0.00
1984	0.68	0.70	0.05	0.05	0.36	0.33	0.04	0.08	0.11	0.05	0.00	0.00
1985	0.27	0.49	0.06	0.07	0.06	0.08	0.01	0.00	0.00	0.00	0.00	0.00
1986	0.26	0.38	0.16	0.09	0.13	0.03	0.03	0.00	0.00	0.00	0.00	0.00
1987	0.62	0.79	0.33	0.19	0.10	0.07	0.02	0.02	0.00	0.00	0.00	0.00
1988	4.71	1.23	0.48	0.32	0.23	0.09	0.05	0.03	0.02	0.00	0.00	0.00
1989	3.02	10.84	2.99	1.14	0.38	0.23	0.08	0.00	0.00	0.00	0.00	0.00
1990	2.55	5.57	3.22	1.54	0.48	0.16	0.07	0.01	0.04	0.00	0.00	0.00
1991	3.57	1.56	0.34	1.05	0.70	0.44	0.20	0.11	0.09	0.02	0.01	0.00
1992	0.48	2.01	1.14	1.60	0.72	0.20	0.07	0.03	0.02	0.00	0.01	0.00
1993	1.29	1.19	1.33	2.33	1.42	0.62	0.23	0.05	0.02	0.01	0.00	0.00
1994	0.35	0.40	0.47	0.71	0.25	0.10	0.06	0.03	0.01	0.00	0.00	0.00
1995	0.02	0.07	0.23	0.66	1.14	0.73	0.24	0.08	0.01	0.00	0.00	0.00
1996	3.17	2.48	0.43	1.31	1.01	1.27	0.52	0.16	0.06	0.01	0.01	0.00
1997	1.69	4.82	0.83	0.37	0.54	0.40	0.33	0.20	0.07	0.04	0.01	0.00
1998	4.61	2.04	0.57	0.99	0.44	0.39	0.18	0.08	0.02	0.02	0.00	0.01
1999	0.24	0.40	0.22	0.98	1.01	0.40	0.27	0.18	0.18	0.05	0.03	0.00

Table A6.2 cont.

New York Ocean Haul Seine (NYOHS)

Geometric

Age

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982												
1983												
1984												
1985												
1986												
1987	1.13	6.93	12.77	9.91	3.14	1.24	0.24	0.06	0.00	0.02	0.00	0.10
1988	6.41	7.64	5.53	4.72	2.42	0.62	0.41	0.11	0.06	0.02	0.00	0.38
1989	1.86	2.73	1.50	1.62	1.04	0.95	0.22	0.03	0.02	0.03	0.02	0.10
1990	1.89	9.19	9.52	3.54	3.06	1.73	1.38	0.49	0.18	0.03	0.00	0.06
1991	5.23	9.26	6.16	1.31	0.42	0.64	1.05	0.58	0.16	0.05	0.09	0.29
1992	1.49	7.84	4.85	2.28	0.62	0.27	0.32	0.47	0.33	0.06	0.11	0.20
1993	3.81	9.43	7.09	1.71	0.80	0.23	0.22	0.28	0.32	0.17	0.06	0.25
1994	2.22	4.26	2.46	2.12	1.31	0.86	0.59	0.35	0.64	0.20	0.38	0.30
1995	3.20	3.52	3.32	0.94	0.86	0.46	0.16	0.07	0.16	0.15	0.04	0.10
1996	11.75	105.61	16.13	4.64	1.33	1.03	0.38	0.19	0.10	0.00	0.07	0.04
1997	20.24	23.79	44.23	6.56	1.81	0.36	0.36	0.38	0.17	0.07	0.09	0.06
1998	19.60	31.02	17.91	29.83	3.82	0.95	0.61	0.30	0.02	0.10	0.16	0.12
1999	1.97	17.75	4.87	1.68	1.24	0.14	0.09	0.13	0.10	0.11	0.02	0.14
2000	7.79	11.81	26.54	9.43	2.23	2.25	0.25	0.24	0.10	0.11	0.06	0.29
2001	1.49	12.94	4.19	6.05	2.09	0.78	0.55	0.09	0.11	0.03	0.00	0.08
2002	7.33	5.14	4.19	1.83	1.67	1.30	0.45	0.45	0.03	0.11	0.04	0.13
2003	11.51	20.76	7.12	5.25	2.31	3.68	2.88	1.29	1.01	0.72	0.05	0.29
2004	5.46	62.09	29.79	6.84	2.42	0.83	0.67	0.39	0.12	0.15	0.19	0.02
2005	9.72	5.09	16.41	5.45	1.34	0.55	0.14	0.36	0.26	0.14	0.15	0.18
2006	3.90	38.77	4.44	9.81	2.59	0.88	0.35	0.15	0.02	0.06	0.00	0.00

Table A6.2 cont.

New York Ocean Haul Seine (NYOHS)

Arithmetic

Age

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982												
1983												
1984												
1985												
1986												
1987	2.86	17.58	32.38	25.12	7.95	3.15	0.60	0.16	0.00	0.05	0.00	0.27
1988	13.69	16.32	11.82	10.08	5.17	1.31	0.87	0.23	0.12	0.04	0.00	0.81
1989	3.92	5.75	3.16	3.42	2.18	2.00	0.46	0.07	0.04	0.07	0.04	0.22
1990	7.00	34.07	35.31	13.13	11.34	6.41	5.11	1.82	0.66	0.12	0.00	0.24
1991	41.55	73.60	48.97	10.38	3.35	5.09	8.37	4.63	1.30	0.38	0.73	2.34
1992	9.89	52.09	32.22	15.15	4.12	1.82	2.13	3.14	2.23	0.41	0.71	1.30
1993	7.05	17.45	13.12	3.16	1.48	0.43	0.40	0.52	0.60	0.32	0.11	0.46
1994	14.45	27.76	16.04	13.81	8.50	5.61	3.81	2.29	4.20	1.33	2.45	1.93
1995	36.36	39.89	37.67	10.71	9.77	5.27	1.85	0.74	1.76	1.68	0.47	1.12
1996	32.60	293.15	44.78	12.89	3.69	2.85	1.04	0.54	0.27	0.00	0.19	0.10
1997	126.82	149.04	277.16	41.13	11.34	2.23	2.27	2.36	1.05	0.46	0.54	0.40
1998	159.55	252.53	145.76	242.83	31.11	7.76	5.00	2.40	0.18	0.80	1.29	0.99
1999	7.25	65.36	17.92	6.19	4.58	0.51	0.35	0.47	0.36	0.40	0.09	0.53
2000	29.32	44.46	99.95	35.51	8.40	8.48	0.94	0.91	0.38	0.41	0.24	1.08
2001	8.60	74.46	24.08	34.82	12.01	4.50	3.14	0.50	0.66	0.18	0.00	0.44
2002	59.31	41.57	33.87	14.80	13.47	10.51	3.63	3.62	0.24	0.89	0.31	1.08
2003	87.86	158.49	54.35	40.10	17.63	28.11	21.97	9.84	7.70	5.51	0.42	2.24
2004	14.11	160.37	76.95	17.67	6.25	2.16	1.74	1.01	0.32	0.38	0.50	0.05
2005	58.53	30.66	98.81	32.81	8.06	3.30	0.84	2.15	1.56	0.85	0.88	1.07
2006	21.64	215.39	24.67	54.52	14.37	4.87	1.94	0.86	0.09	0.35	0.00	0.00

Table A6.2 cont.

Maryland Gillnet Survey (MDSSN)

Year	Age												
	1	2	3	4	5	6	7	8	9	10	11	12	13+
1982													
1983													
1984													
1985	0	140.5	305.5	31.9	4.8	1.3	2.2	0.0	0.4	0.1	0.0	0.4	1.0
1986	0	230.2	261.1	497.6	4.0	5.3	2.0	2.9	2.8	0.0	0.0	0.0	0.9
1987	0	142.2	258.0	115.1	176.1	17.9	2.2	2.6	0.2	0.0	0.0	0.0	0.6
1988	0	40.8	77.6	71.3	57.0	74.6	1.3	0.0	0.0	4.3	0.0	0.0	0.4
1989	0	33.1	154.7	80.5	45.5	48.8	32.9	0.2	0.1	0.0	0.0	0.0	0.0
1990	0	78.1	158.1	120.4	48.3	34.3	32.0	29.8	0.9	0.1	0.1	0.5	1.0
1991	0	73.4	191.1	62.2	47.1	26.7	26.1	19.2	10.7	0.4	1.5	0.0	2.3
1992	0.1	27.4	221.1	153.5	58.6	69.9	42.9	29.1	13.7	7.0	3.3	0.0	2.4
1993	0	41.0	132.0	187.2	88.2	51.0	51.9	37.1	22.6	7.4	3.1	0.8	2.9
1994	0	26.8	103.5	98.0	117.9	59.5	34.0	42.9	17.6	8.6	3.1	1.3	0.3
1995	0	50.0	117.2	67.3	60.9	51.8	40.2	25.1	19.8	11.6	9.7	3.5	4.7
1996	0	4.0	368.3	102.2	34.7	69.5	64.4	42.3	35.4	16.7	15.2	4.7	1.6
1997	0	40.6	46.3	134.6	46.0	21.7	19.7	25.8	22.3	12.3	12.0	3.7	1.8
1998	0	36.1	142.8	32.7	149.3	32.3	13.2	18.5	17.3	15.0	9.1	9.9	2.5
1999	0	7.0	174.2	80.1	56.8	35.3	11.4	6.6	11.1	5.2	5.1	2.7	1.2
2000	0	10.2	50.7	107.6	50.3	58.2	27.2	14.1	8.1	7.9	7.8	4.9	5.5
2001	0	4.7	39.1	52.3	51.6	23.2	28.5	38.0	13.2	11.9	9.8	5.5	4.7
2002	0	96.3	41.5	38.5	83.3	34.0	29.9	31.6	22.8	7.4	4.1	5.4	5.5
2003	0	17.7	110.0	47.8	37.1	61.5	56.8	30.8	27.5	34.4	9.9	10.6	10.9
2004	0	31.3	179.1	121.7	41.0	32.9	43.9	46.5	37.2	26.4	27.3	8.1	15.5
2005	0	67.7	105.6	73.9	97.1	24.3	25.8	21.7	27.4	20.4	17.5	11.3	7.6
2006	0	8.8	266.0	41.3	49.0	30.3	15.0	12.8	18.5	21.5	13.4	10.7	18.5

Table A6.2 cont.

Delaware Electrofishing Survey (DESSN)

Year	2	3	4	5	6	7	8	9	10	11	12	13+
1982												
1983												
1984												
1985												
1986												
1987												
1988												
1989												
1990												
1991												
1992												
1993												
1994												
1995												
1996	0.1	7.7	3.5	1.1	1.6	1.4	1.2	1.1	0.3	0.2	0.2	0.2
1997	2.0	1.6	8.6	3.0	1.1	1.4	1.6	0.7	0.7	0.5	0.2	0.5
1998	1.1	2.4	2.7	9.6	2.5	1.7	2.9	2.6	0.9	0.7	0.2	0.3
1999	0.0	1.6	2.2	2.7	3.6	1.1	0.8	1.2	0.9	0.8	0.2	0.2
2000	0.9	0.9	5.2	4.3	3.4	5.6	1.6	0.7	1.0	0.8	0.2	0.2
2001	0.1	2.3	2.0	3.7	2.2	2.8	4.0	1.0	0.3	0.8	0.4	0.4
2002	0.7	1.4	3.8	3.6	3.2	2.3	1.8	1.9	0.5	0.3	0.2	0.4
2003	0.5	2.4	2.4	3.3	2.2	2.7	3.1	2.6	3.0	0.8	0.7	0.9
2004	0.2	4.9	6.8	2.9	2.0	1.6	3.3	2.3	2.4	1.3	0.4	1.4
2005	1.9	3.1	3.3	3.9	1.6	0.9	0.6	0.7	1.2	0.7	0.9	0.9
2006	1.6	5.4	2.6	3.8	3.8	1.9	1.4	1.1	1.3	1.3	1.0	1.7

Table A6.2 cont.

Year	New York				New Jersey				Virginia				Maryland			
	YOY		Age 1		YOY		Arithmetic		YOY		Arithmetic		YOY		Arithmetic	
	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic	Geometric	Arithmetic
1969																
1970																
1971																
1972																
1973																
1974																
1975																
1976																
1977																
1978																
1979			5.0													
1980	2.15		23.9													
1981	6.08		21.4													
1982	8.86		30.5													
1983	14.17		48.0													
1984	16.25		37.1													
1985	15.00															
1986	1.92		3.8													
1987	2.92		6.1													
1988	15.90		60.7													
1989	33.46		52.3													
1990	21.35		41.9													
1991	19.08		38.0													
1992	3.60		6.9													
1993	11.43		17.3													
1994	12.59		26.5													
1995	17.64		28.5													
1996	16.23		27.4													
1997	8.93		14.7													
1998	22.30		50.3													
1999	13.39		22.9													
2000	26.64		52.5													
2001	3.16		7.8													
2002	22.98		91.2													
2003	12.32		21.5													
2004	17.36		35.0													
2005	8.81		14.3													
2006	8.61		35.0													
	3.82		8.3													

Table A7.1. The fraction of total mortality (p) that occurs prior to the survey and ages to which survey indices are linked

	p	Linked Ages
Age-specific		
NY YOY	0	1 (January 1 st)
NJ YOY	0	1 (January 1 st)
MD YOY	0	1 (January 1 st)
VA YOY	0	1 (January 1 st)
MD Age 1	0	2 (January 1 st)
NY (WLD) Age 1	0	2 (January 1 st)
Aggregate		
MRFSS	0.5	3-13+
CTCPUE	0.5	2-13+
NEFSC	0.333	2-9
CT Trawl	0.333	2-4
MA COMM	0.5	3-13+
Indices with age compositions		
NY OHS	0.75	2-13+
NJ Trawl	0.25	2-13+
MD SSN	0.25	2-13+
DE SSN	0.25	2-13+

Table A7.2. Estimates of effective sample size from the New Jersey, Delaware, Maryland, and New York fishery-independent surveys

Survey	Year	No. Hauls With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
NJ	1999	22	298	45.2	181.893	46.5	9.199	20
	2000	28	280	51.8	278.077	51.7	12.715	22
	2001	23	94	51.7	291.755	51.9	10.24	28
Average								23

Survey	Year	No. Runs With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
DE	1999	50	281	611.9	30784.3	610.4	357.375	86
	2000	37	304	565.7	24952.6	546.5	502.028	50
	2001	44	288	617.6	26952.1	616.6	402.063	67
Average								68

Assuming Sets is Sampling Units

Survey	Year	No. of Sets With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
MD	1999	20	2883	478.1	18555.6	474.5	395.414	47
	2000	20	2349	519.5	20641.4	518.4	205.491	100
	2001	20	1868	597.2	32827.2	597	140.701	233
	2002	20	2212	550.9	27542.1	547.5	466.204	59
	2003	21	2115	547.6	29745.5	544.1	827.03	36
	2004	20	2325	540.3	34938.5	534.1	1459.24	24
	2005	20	1650	551.2	35616.4	548.3	1110.37	32
	2006	20	1766	522.5	34920.8	511.5	2001.31	17
Average								68.5

Survey	Year	No. of Sets With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
NY	1987	56	1949	639.2	8160.28	641.0	133.62	61
	1988	58	2098	604.0	17370.60	604.1	212.23	82
	1989	59	1195	621.4	18716.80	621.1	219.26	85
	1990	58	2042	658.7	13897.90	661.7	425.84	33
	1991	55	1788	552.1	15240.70	547.8	364.91	42
	1992	58	1605	570.5	10023.30	566.9	256.25	39
	1993	59	2201	604.9	17746.40	605.6	288.53	62
	1994	59	1710	613.1	15112.60	608.4	290.56	52
	1995	57	1491	438.3	9199.04	427.2	769.23	12
	1996	54	2198	485.7	6536.21	485.8	113.08	58
	1997	45	1665	492.8	4449.32	492.9	37.65	118
	1998	44	1591	545.0	7387.53	545.9	263.46	28
	1999	45	1398	519.5	5399.00	516.1	140.50	38
	2000	44	1520	597.1	13592.10	598.5	222.20	61
	2001	45	1052	549.5	7082.03	541.1	470.01	15
	2002	44	1220	514.5	13092.00	513.4	131.26	100
	2003	25	833	572.5	11641.00	572.3	246.95	47
2004	44	1524	526.4	8424.27	526.4	71.92	117	
2005	40	1037	535.9	9950.54	540.7	443.79	22	
Average								56.4210526

Table A7.3. Starting values for model parameters

Average recruitment (log) 10.6

Average fishing mortality(log)-2.6

Catch Selectivity Parameters

α 3

β 1

Survey Selectivity - NJ Trawl, DE SSN, MDSSN

α 3

β 1

- MD SSN

s_2 0.3

-*NYOHS*

γ 0.95

α -1

β 1

Catchability Coefficients (log)

YOY/Age1 Indices q -20.4

Aggregate Indices q -19.7

Survey/Age Comp Indices q -20.2

Table A7.4. Model runs under equal weighting with the likelihood components de-emphasized one-at-a-time (shading) using lambda =0.5.

Component	Base	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Total Catch	199.201	156.124	169.323	198.776	198.111	189.096	198.26	194.805	199.624	198.098	199.179	197.852	198.955	197.695	198.636	191.059	198.759	148.788	201.62	197.778	199.828	198.673	182.34	206.685
NY YOY	1231.16	1212.98	641.46	1217.33	1225.65	1232.24	1231.52	1228.47	1231.26	1225.08	1231.40	1223.13	1232.41	1227.05	1229.95	1241.78	1230.92	1198.87	1231.54	1225.40	1228.52	1230.62	1242.90	1229.68
NJ YOY	371.94	380.88	357.65	188.54	374.28	370.13	372.10	372.02	371.80	374.22	371.75	374.24	371.47	372.98	370.17	367.67	372.01	376.10	370.58	371.75	371.97	373.02	366.60	373.41
MD YOY	370.50	376.20	357.47	370.70	366.84	370.06	374.05	370.28	371.64	370.01	369.36	370.12	369.36	370.33	370.17	368.88	370.49	336.45	377.45	370.10	365.75	369.87	369.84	371.83
VA YOY	311.36	302.46	314.60	310.15	160.35	311.05	310.90	311.33	310.32	311.25	311.25	310.27	311.77	310.01	311.04	313.07	311.35	289.43	314.97	308.68	316.91	311.90	313.32	312.65
NY 1	99.70	101.26	99.36	99.91	99.72	99.09	49.98	99.59	99.69	99.84	99.74	99.64	99.64	99.79	99.67	99.13	99.70	100.39	99.90	99.39	99.21	99.31	99.73	99.73
MD 1	303.36	304.33	297.09	302.28	307.70	301.54	303.04	155.77	303.22	303.80	303.00	302.48	303.20	303.12	303.18	302.60	303.35	284.99	307.19	303.42	300.64	303.23	301.86	303.18
MRFS	12.18	13.24	12.42	12.05	12.03	12.14	12.18	12.07	6.13	11.83	12.27	12.09	12.21	12.12	12.18	12.28	12.15	12.02	11.68	12.30	12.31	12.48	12.34	12.15
CTGUE	55.38	56.06	48.74	57.83	56.81	54.04	55.42	56.08	55.11	28.90	54.96	56.93	54.94	56.59	55.57	52.99	55.51	58.10	56.29	55.84	54.79	55.19	52.58	55.72
NEFSC	65.85	68.16	65.55	65.82	65.72	65.59	65.93	65.67	65.93	65.57	65.86	65.83	65.85	65.83	65.85	65.79	65.82	65.92	66.07	65.33	66.20	65.95	65.72	65.72
CTTRL	247.08	252.01	239.63	249.74	247.57	245.70	247.31	247.25	246.99	248.61	246.99	124.66	246.75	247.97	247.25	243.51	247.13	250.14	244.11	247.52	251.15	246.85	244.04	248.12
MACOMM	10.65	10.43	12.14	10.18	10.34	11.10	10.61	10.52	10.68	10.22	10.67	10.33	5.44	10.34	10.60	11.13	10.64	9.84	10.51	10.23	11.56	10.61	11.11	10.66
NYOHS Index	155.54	158.30	151.90	156.88	156.59	154.25	155.92	155.85	155.49	156.96	155.76	156.56	155.24	78.26	155.71	154.57	155.57	157.25	156.44	156.54	152.17	156.18	154.31	154.82
NJTRL Index	59.10	60.00	58.23	59.29	59.18	58.76	59.11	59.17	59.10	59.28	59.11	59.27	59.05	59.28	29.58	58.85	59.10	59.05	59.29	59.27	58.67	59.49	58.83	58.93
MDSSN Index	173.75	166.13	185.43	169.86	173.44	175.43	173.55	173.62	173.84	171.69	173.98	170.43	174.19	172.57	173.50	89.80	173.69	173.78	179.14	173.24	164.07	173.21	178.58	171.57
DESSN Index	11.22	10.89	11.09	11.32	11.30	11.21	11.22	11.27	11.19	11.36	11.19	11.28	11.20	11.25	11.22	11.17	5.62	11.54	11.38	11.14	11.14	11.11	11.14	11.20
Catch Age Comps	20418.70	20416.00	20419.70	20419.50	20418.10	20418.80	20418.90	20418.50	20418.70	20419.00	20418.80	20419.20	20418.70	20419.00	20418.80	20419.00	20418.70	10224.60	20417.10	20419.40	20413.60	20415.80	20418.90	20417.80
NYOHS Age Comp	1871.07	1871.01	1870.74	1870.74	1871.14	1870.99	1870.88	1871.18	1871.04	1870.93	1870.85	1871.06	1871.08	1871.08	1871.07	1871.11	1871.08	1868.57	937.69	1871.22	1868.16	1870.81	1871.12	1870.85
NJTRL Age Comp	765.37	765.26	765.20	765.40	765.27	765.40	765.42	765.37	765.41	765.35	765.43	765.35	765.39	765.35	765.37	766.38	765.37	766.38	765.72	383.02	764.64	765.10	765.33	765.41
MDSSN Age Comp	3256.64	3256.50	3256.91	3256.65	3256.45	3256.98	3256.55	3256.59	3256.65	3256.57	3256.58	3256.82	3256.68	3256.52	3256.64	3256.64	3256.64	3248.06	3254.07	3255.89	1633.89	3257.85	3256.35	3256.79
DESSN Age Comp	2125.07	2124.99	2125.06	2125.09	2125.01	2125.07	2125.01	2125.06	2125.08	2125.03	2125.05	2125.03	2125.07	2125.10	2125.09	2125.01	2125.06	2121.15	2124.82	2124.76	2126.29	1064.03	2125.06	2125.07
Recr Devs	13.01	12.15	13.98	12.80	12.96	13.20	13.03	13.00	13.02	12.90	13.05	12.93	13.04	12.99	13.11	13.02	13.01	13.11	13.06	12.99	12.71	13.01	7.20	12.74
F Devs	7.71	7.82	7.58	7.73	7.75	7.74	7.70	7.68	7.71	7.72	7.70	7.72	7.71	7.67	7.70	7.66	7.71	7.02	7.57	7.75	7.79	7.71	7.46	4.41
Total Likelihood	28874.20	28846.00	28870.70	28870.70	28872.20	28872.20	28877.80	28872.70	28880.20	28878.90	28878.70	28874.00	28880.20	28876.60	28879.00	28875.80	28880.20	18664.90	27943.90	28497.50	27249.40	27817.20	28873.70	28876.40
F2006	0.28	0.27	0.27	0.29	0.28	0.28	0.28	0.29	0.28	0.29	0.28	0.29	0.28	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.28	0.28
%Change F	-4.53	-4.06	1.83	1.21	-0.78	-0.12	0.84	-0.30	2.27	-0.58	1.06	-0.38	1.07	0.17	-1.81	0.17	-0.48	-0.35	0.16	1.87	1.77	-1.82	0.27	0.27

Table A7.5. Likelihood components with respective contributions from final model run

Likelihood Components

	Weight	RSS
Total Catch	: 10	123.862
YOY/Yearl Surveys		
NY YOY	: 1	1311.820
NJ YOY	: 1	350.719
MD YOY	: 1	435.954
VA YOY	: 1	326.327
NY Age 1	: 1	99.617
MD Age 1	: 1	323.234
Aggregate Surveys		
MRFSS	: 1	9.539
CT REC CPUE	: 1	60.405
NEFSC	: 1	62.602
CT Trawl	: 1	278.141
Age Survey Indices		
NY OHS	: 1	155.059
NJ Trawl	: 1	57.779
MD SSN	: 1	186.536
DE SSN	: 1	13.805
Total RSS		3795.400
No. of Obs		351
Conc. Likelihood		417.823
Catch Age Comps	: 1	20345.900
Survey Age Comps		
NY OHS	: 1	1870.960
NJ Trawl	: 1	764.842
MD SSN	: 1	3258.780
DE SSN	: 1	2124.400
Recr Devs	: 1	21.534
F Devs	: 1	5.214
Total Likelihood	:	28809.5

Table A7.6. Parameter estimates and associated standard deviations of final model configuration

Year	Full F	SD	CV
1982	0.45	0.024	0.05
1983	0.42	0.108	0.26
1984	0.31	0.059	0.19
1985	0.22	0.040	0.18
1986	0.16	0.033	0.21
1987	0.08	0.013	0.17
1988	0.15	0.044	0.29
1989	0.11	0.021	0.20
1990	0.12	0.012	0.10
1991	0.11	0.012	0.11
1992	0.09	0.007	0.08
1993	0.11	0.010	0.09
1994	0.12	0.010	0.08
1995	0.17	0.012	0.07
1996	0.20	0.015	0.07
1997	0.24	0.016	0.07
1998	0.20	0.014	0.07
1999	0.17	0.012	0.07
2000	0.22	0.015	0.07
2001	0.20	0.014	0.07
2002	0.19	0.014	0.07
2003	0.24	0.020	0.08
2004	0.27	0.025	0.09
2005	0.29	0.031	0.11
2006	0.32	0.040	0.13

Year	Recruits	SD	CV
1970	1.60E+07	5.71E+06	0.36
1971	3.40E+07	1.03E+07	0.30
1972	1.42E+07	4.46E+06	0.31
1973	8.79E+06	2.53E+06	0.29
1974	4.90E+06	1.30E+06	0.27
1975	3.37E+06	834362	0.25
1976	2.71E+06	523628	0.19
1977	1.84E+06	330758	0.18
1978	2.26E+06	306056	0.14
1979	3.83E+06	396848	0.10
1980	2.49E+06	247447	0.10
1981	1.67E+06	164029	0.10
1982	1.78E+06	145104	0.08
1983	4.30E+06	253501	0.06
1984	3.58E+06	208215	0.06
1985	3.53E+06	205713	0.06
1986	3.28E+06	194850	0.06
1987	4.43E+06	241034	0.05
1988	5.27E+06	273369	0.05
1989	6.47E+06	319641	0.05
1990	9.17E+06	421163	0.05
1991	7.65E+06	383671	0.05
1992	8.08E+06	412872	0.05
1993	1.04E+07	499330	0.05
1994	2.06E+07	816930	0.04
1995	1.32E+07	631695	0.05
1996	1.50E+07	728187	0.05
1997	1.65E+07	834198	0.05
1998	9.84E+06	607299	0.06
1999	9.33E+06	631004	0.07
2000	7.42E+06	585098	0.08
2001	1.28E+07	1.01E+06	0.08
2002	1.51E+07	1.36E+06	0.09
2003	7.70E+06	867156	0.11
2004	2.23E+07	2.55E+06	0.11
2005	8.24E+06	1.29E+06	0.16
2006	1.00E+07	2.22E+06	0.22

Catch Selectivity Parameters

	Estimate	SD	CV
1982-1984			
α	1.79	0.043	0.02
β	2.16	0.134	0.06
1985-1989			
α	3.97	0.194	0.05
β	0.52	0.034	0.07
1990-1995			
α	2.97	0.086	0.03
β	0.86	0.052	0.06
1996-2006			
α	3.42	0.093	0.03
β	0.62	0.029	0.05

Survey Selectivity Parameters

NYOHS			
γ	0.94	0.027	0.03
α	-3.97	1.399	0.36
β	2.31	0.136	0.06
NJ Trawl			
α	1.44	0.425	0.30
β	0.36	0.098	0.27
DE SSN			
α	3.26	0.178	0.05
β	0.70	0.100	0.14
MDSSN			
s_2	0.29	0.024	0.08

Catchability Coefficients

	Estimate	SD	CV
NY YOY	2.71E-06	2.22E-07	0.08
NJ YOY	2.32E-07	3.05E-08	0.13
MD YOY	1.14E-06	1.19E-07	0.10
VA YOY	8.73E-07	8.17E-08	0.09
NY Age 1	6.42E-07	1.47E-07	0.23
MD Age 1	7.92E-08	1.32E-08	0.17
MRFSS	4.15E-08	7.31E-09	0.18
CTCPUE	1.63E-07	2.26E-08	0.14
NEFSC	1.89E-08	3.60E-09	0.19
CTTRL	2.17E-08	3.87E-09	0.18
NYOHS	9.70E-06	1.95E-06	0.20
NJTRL	1.62E-07	4.51E-08	0.28
MDSSN	2.16E-05	3.93E-06	0.18
DESSN	9.87E-07	2.09E-07	0.21

Table A7.7. Average and N weighted F estimates for various ages

Year	Average F		N Weighted F	
	8-11	3-8	7-11	3-8
1982	0.45	0.45	0.45	0.44
1983	0.42	0.41	0.42	0.41
1984	0.31	0.31	0.31	0.30
1985	0.21	0.13	0.19	0.07
1986	0.15	0.09	0.14	0.06
1987	0.08	0.05	0.07	0.03
1988	0.14	0.09	0.13	0.07
1989	0.10	0.07	0.09	0.05
1990	0.12	0.09	0.11	0.08
1991	0.11	0.08	0.10	0.07
1992	0.09	0.07	0.08	0.06
1993	0.11	0.09	0.11	0.07
1994	0.12	0.10	0.12	0.09
1995	0.17	0.14	0.17	0.12
1996	0.19	0.14	0.19	0.10
1997	0.23	0.17	0.23	0.13
1998	0.19	0.14	0.19	0.11
1999	0.16	0.11	0.16	0.09
2000	0.22	0.15	0.21	0.14
2001	0.19	0.14	0.19	0.13
2002	0.18	0.13	0.18	0.12
2003	0.23	0.16	0.23	0.14
2004	0.26	0.19	0.26	0.15
2005	0.28	0.20	0.28	0.17
2006	0.31	0.22	0.31	0.16

Table A7.8. Estimates of fishing mortality by age

Year	Age												
	1	2	3	4	5	6	7	8	9	10	11	12	13+
1982	0.00	0.24	0.42	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
1983	0.00	0.22	0.39	0.41	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
1984	0.00	0.16	0.29	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
1985	0.00	0.01	0.04	0.08	0.12	0.16	0.18	0.20	0.21	0.21	0.22	0.22	0.22
1986	0.00	0.01	0.03	0.06	0.09	0.11	0.13	0.14	0.15	0.15	0.15	0.16	0.16
1987	0.00	0.01	0.02	0.03	0.04	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08
1988	0.00	0.01	0.03	0.06	0.08	0.11	0.12	0.13	0.14	0.15	0.15	0.15	0.15
1989	0.00	0.01	0.02	0.04	0.06	0.08	0.09	0.10	0.10	0.11	0.11	0.11	0.11
1990	0.00	0.01	0.04	0.08	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12
1991	0.00	0.01	0.04	0.07	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11
1992	0.00	0.01	0.03	0.06	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09
1993	0.00	0.01	0.04	0.07	0.09	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11
1994	0.00	0.01	0.05	0.08	0.10	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
1995	0.00	0.02	0.07	0.12	0.15	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17
1996	0.00	0.02	0.05	0.10	0.14	0.16	0.18	0.19	0.19	0.20	0.20	0.20	0.20
1997	0.00	0.02	0.07	0.12	0.17	0.20	0.22	0.23	0.23	0.24	0.24	0.24	0.24
1998	0.00	0.02	0.05	0.10	0.14	0.16	0.18	0.19	0.19	0.20	0.20	0.20	0.20
1999	0.00	0.01	0.05	0.08	0.11	0.14	0.15	0.16	0.16	0.16	0.17	0.17	0.17
2000	0.00	0.02	0.06	0.11	0.15	0.18	0.20	0.21	0.22	0.22	0.22	0.22	0.22
2001	0.00	0.02	0.05	0.10	0.14	0.16	0.18	0.19	0.19	0.20	0.20	0.20	0.20
2002	0.00	0.02	0.05	0.09	0.13	0.15	0.17	0.18	0.18	0.18	0.18	0.19	0.19
2003	0.00	0.02	0.07	0.12	0.16	0.20	0.22	0.23	0.23	0.24	0.24	0.24	0.24
2004	0.00	0.02	0.07	0.13	0.19	0.22	0.24	0.26	0.26	0.27	0.27	0.27	0.27
2005	0.00	0.03	0.08	0.15	0.20	0.24	0.26	0.28	0.28	0.29	0.29	0.29	0.29
2006	0.00	0.03	0.09	0.16	0.22	0.26	0.29	0.31	0.31	0.32	0.32	0.32	0.32

Table A7.9. Estimates of population abundance (thousands) by age

Year	Age													Total	8+
	1	2	3	4	5	6	7	8	9	10	11	12	13+		
1982	1,785	1,433	1,453	1,258	408	182	146	100	79	78	68	90	51	7,129	465
1983	4,304	1,534	971	820	690	223	99	80	54	43	42	37	77	8,976	334
1984	3,579	3,699	1,059	567	467	392	127	56	45	31	25	24	65	10,134	246
1985	3,527	3,077	2,700	682	358	294	247	80	35	29	19	15	56	11,119	235
1986	3,275	3,029	2,612	2,228	541	273	217	177	56	25	20	13	49	12,515	342
1987	4,434	2,815	2,581	2,181	1,807	426	210	164	133	42	18	15	46	14,872	418
1988	5,267	3,813	2,410	2,188	1,821	1,487	346	169	131	106	33	15	48	17,836	503
1989	6,466	4,527	3,251	2,015	1,779	1,440	1,150	263	127	98	79	25	47	21,266	639
1990	9,166	5,560	3,869	2,739	1,664	1,439	1,146	904	205	99	76	61	55	26,982	1,400
1991	7,647	7,885	4,729	3,187	2,183	1,299	1,112	881	694	158	76	58	89	29,998	1,955
1992	8,076	6,578	6,714	3,910	2,556	1,719	1,013	863	683	537	122	59	114	32,945	2,378
1993	10,436	6,948	5,613	5,593	3,179	2,047	1,365	802	683	540	424	96	136	37,862	2,681
1994	20,589	8,978	5,915	4,636	4,480	2,497	1,592	1,058	620	527	417	328	179	51,815	3,129
1995	13,237	17,711	7,630	4,857	3,674	3,473	1,915	1,215	805	472	401	317	385	56,091	3,594
1996	14,959	11,384	14,978	6,149	3,726	2,733	2,544	1,393	881	583	341	290	508	60,469	3,996
1997	16,493	12,847	9,627	12,212	4,794	2,797	1,999	1,831	993	625	413	241	563	65,435	4,667
1998	9,837	14,158	10,824	7,759	9,322	3,495	1,976	1,385	1,255	677	424	280	545	61,937	4,566
1999	9,329	8,448	11,973	8,824	6,048	6,995	2,556	1,422	988	890	479	300	582	58,834	4,661
2000	7,421	8,015	7,165	9,848	6,990	4,641	5,253	1,894	1,046	723	650	349	643	54,636	5,305
2001	12,792	6,371	6,764	5,804	7,587	5,162	3,330	3,702	1,321	725	500	449	684	55,193	7,382
2002	15,122	10,986	5,388	5,513	4,523	5,692	3,773	2,395	2,639	937	513	353	799	58,632	7,636
2003	7,700	12,989	9,301	4,408	4,325	3,424	4,205	2,747	1,729	1,895	671	367	824	54,584	8,232
2004	22,279	6,610	10,945	7,500	3,367	3,157	2,423	2,919	1,886	1,180	1,289	456	808	64,818	8,537
2005	8,237	19,120	5,555	8,752	5,643	2,407	2,178	1,636	1,947	1,249	778	849	831	59,182	7,290
2006	10,038	7,067	16,037	4,416	6,515	3,974	1,632	1,443	1,069	1,263	807	502	1,081	55,844	6,165

Table A7.10. Estimates of female spawning stock biomass (metric tons)

Year	Age													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13+	
1982	0	0	0	28	50	139	271	241	195	291	342	449	325	2,330
1983	0	0	0	18	78	129	151	174	146	140	176	180	389	1,582
1984	0	0	0	13	53	230	212	112	126	97	93	122	369	1,427
1985	0	0	0	22	41	191	418	184	102	94	76	68	362	1,557
1986	0	0	0	67	67	151	340	389	144	75	71	57	295	1,656
1987	0	0	0	68	272	241	296	314	330	117	60	60	287	2,045
1988	0	0	0	69	286	997	516	307	306	276	117	61	301	3,237
1989	0	0	0	60	269	1,148	2,237	608	319	311	262	106	293	5,612
1990	0	0	0	82	233	1,041	2,258	2,257	575	278	286	257	326	7,594
1991	0	0	0	95	310	750	1,996	2,049	2,023	442	267	215	594	8,740
1992	0	0	0	117	387	1,130	1,673	2,017	2,015	1,835	448	299	749	10,669
1993	0	0	0	170	450	1,373	2,397	1,938	2,046	1,893	1,757	464	930	13,417
1994	0	0	0	149	652	1,642	2,796	2,544	1,874	1,799	1,725	1,551	1,072	15,804
1995	0	0	0	175	553	2,355	3,452	2,941	2,523	1,708	1,412	1,438	2,996	19,554
1996	0	0	0	205	602	2,033	5,100	3,773	2,846	2,220	1,443	1,181	3,240	22,643
1997	0	0	0	436	743	2,009	3,733	4,548	3,187	2,453	1,829	1,091	3,860	23,890
1998	0	0	0	202	1,335	2,116	3,389	3,066	3,438	2,167	1,667	1,289	3,010	21,678
1999	0	0	0	219	649	3,504	3,350	3,035	2,813	3,043	1,747	1,219	3,255	22,834
2000	0	0	0	235	714	2,248	6,799	3,423	2,906	2,337	2,636	1,564	4,045	26,906
2001	0	0	0	151	827	2,739	4,686	7,166	3,501	2,513	1,859	1,874	3,462	28,779
2002	0	0	0	135	538	3,170	5,787	4,991	6,770	3,028	2,012	1,512	4,292	32,236
2003	0	0	0	101	479	1,895	6,271	5,595	4,637	5,792	2,495	1,572	4,202	33,038
2004	0	0	0	166	376	1,726	3,638	5,848	4,901	3,595	4,573	1,845	3,998	30,666
2005	0	0	0	190	599	1,400	3,163	3,421	5,088	3,675	2,710	3,340	4,483	28,070
2006	0	0	0	94	704	2,053	2,426	2,766	2,899	3,827	2,734	1,957	5,519	24,979

Table A7.11. Examples of randomized starting values used to test the convergence properties of the SCA model

Components	Parameter	Base	Randomized Values													
			Run 2	Run 17	Run 23	Run 30	Run 43	Run 55	Run 61	Run 79	Run 87	Run 92				
NYOHS Selectivity	Y	0.95	0.91	0.55	0.63	0.89	0.64	0.84	0.79	0.58	0.60	0.57	0.60	0.57		
	α	-1	-1.44	-0.66	-1.20	-1.10	-0.69	-0.52	-1.37	-0.80	-1.04	-1.36	-1.04	-1.36		
	β	1	1.17	0.87	1.13	1.15	1.23	1.28	1.10	1.41	0.73	1.08	0.73	1.08		
NJ Trawl Selectivity	α	3	3.06	1.89	2.41	3.30	3.67	3.57	2.43	2.41	2.32	4.47	2.32	4.47		
	β	1	1.01	0.55	0.64	1.44	1.14	1.44	1.09	1.20	1.28	0.76	1.28	0.76		
MDSSN Selectivity	s_2	0.3	0.38	0.23	0.34	0.39	0.30	0.21	0.33	0.39	0.25	0.44	0.39	0.25		
DESSN Selectivity	α	3	2.89	2.65	1.56	3.07	2.85	2.47	3.48	3.26	3.41	4.08	3.26	3.41		
	β	1	1.36	1.26	1.01	0.87	0.77	1.41	0.96	0.94	0.97	1.27	0.97	1.27		
Avg R (log)	R	10.6	8.51	13.36	13.26	14.29	10.38	13.46	6.55	5.57	9.23	10.32	5.57	9.23		
Avg F (log)	F	-2.6	-1.96	-1.59	-2.65	-2.90	-1.40	-3.43	-3.39	-2.15	-1.55	-2.99	-2.15	-1.55		
Catch Selectivity 1982-1984	α	3	3.80	3.62	2.62	1.70	3.98	2.02	1.51	3.85	2.62	1.74	3.85	2.62		
	β	1	0.79	0.88	0.58	1.12	0.77	1.36	1.23	0.73	0.90	0.62	0.73	0.90		
Catch Selectivity 1985-1989	α	3	1.52	2.58	1.89	1.72	3.76	4.21	1.80	2.35	4.33	3.23	2.35	4.33		
	β	1	1.03	0.93	1.36	1.15	0.72	0.78	1.06	1.23	0.96	1.08	1.23	0.96		
Catch Selectivity 1990-1995	α	3	4.30	2.20	4.26	4.33	4.03	3.51	1.94	3.94	2.67	3.25	3.94	2.67		
	β	1	0.92	1.19	0.63	1.06	0.53	1.05	0.69	0.75	1.37	1.45	0.75	1.37		
Catch Selectivity 1996-2006	α	3	3.91	3.93	3.61	4.35	4.25	3.38	3.49	2.19	1.64	1.63	3.49	2.19		
	β	1	0.70	1.37	0.57	1.37	1.23	1.06	1.10	0.91	0.85	0.56	1.10	0.91		
NY YOY	q	-20.4	-24.25	-22.21	-23.13	-26.65	-11.15	-28.69	-14.79	-18.97	-18.53	-27.41	-18.97	-18.53		
NJ YOY	q	-20.4	-30.50	-18.24	-10.85	-11.41	-25.10	-29.70	-28.12	-26.07	-28.48	-13.06	-26.07	-28.48		
MD YOY	q	-20.4	-21.58	-13.63	-26.01	-26.83	-14.52	-25.41	-21.31	-29.20	-15.30	-15.08	-29.20	-15.30		
VA YOY	q	-20.4	-10.48	-17.01	-23.98	-11.04	-16.12	-19.36	-27.54	-18.40	-15.85	-29.94	-18.40	-15.85		
NY Age 1	q	-20.4	-16.02	-20.42	-27.34	-15.71	-20.71	-10.77	-11.18	-17.94	-14.39	-26.90	-17.94	-14.39		
MD Age 1	q	-20.4	-17.60	-14.12	-25.96	-15.27	-28.08	-24.11	-24.32	-19.62	-19.45	-22.38	-19.62	-19.45		
MRFSS	q	-19.7	-29.27	-24.81	-25.63	-23.41	-13.81	-11.65	-15.36	-29.13	-29.38	-20.12	-29.13	-29.38		
CTCPUE	q	-19.7	-18.55	-15.70	-26.20	-27.46	-13.00	-25.27	-23.52	-25.75	-29.29	-17.45	-25.75	-29.29		
NEFSC	q	-19.7	-28.26	-12.43	-17.69	-25.86	-19.01	-17.85	-17.93	-16.16	-26.10	-18.96	-16.16	-26.10		
CTTRL	q	-19.7	-21.23	-25.20	-25.70	-28.76	-20.97	-17.45	-22.68	-13.50	-29.02	-9.94	-13.50	-29.02		
NYOHS	q	-20.2	-18.11	-11.52	-14.31	-17.75	-21.60	-25.70	-17.54	-23.15	-22.59	-11.17	-23.15	-22.59		
NJTRL	q	-20.2	-17.29	-29.78	-10.26	-10.45	-25.45	-28.79	-18.85	-27.19	-20.67	-24.81	-27.19	-20.67		
MDSSN	q	-20.2	-22.30	-14.51	-13.19	-12.17	-11.97	-21.49	-19.31	-14.54	-10.39	-20.18	-14.54	-10.39		
DESSN	q	-20.2	-22.42	-24.29	-12.30	-21.92	-17.24	-29.13	-28.62	-20.25	-10.49	-13.06	-20.25	-10.49		

Table A7.12. Results of changing parameter phase on estimates of fully-recruited fishing mortality and total log-likelihood.

Parameters	Phase			
	Base	Run 1	Run 2	Run 3
Average Recruitment	1	1	1	1
Average Fishing Mortality/ Fishing Mortality Deviations	2/2	2/2	3/4	2/5
Recruitment Deviations	3	3	2	7
Catch Selectivity	4	5	10	3
Catchability Coefficients of YOY/Yearling and Aggregate Survey	5	4	9	5
Catchability Coefficients of Survey Indices with Age Compositions	6	9	7	8
NY OHS Selectivity	7	8	5	4
NJ Trawl Survey Selectivity	8	10	6	6
DE SSN Survey Selectivity	9	6	8	10
MD Survey Selectivity	10	7	7	9

Fully-Recruited Fishing Mortality				
Year	Base	Run 1	Run 2	Run 3
1982	0.45	0.45	0.45	0.45
1983	0.42	0.42	0.42	0.42
1984	0.31	0.31	0.31	0.31
1985	0.22	0.22	0.22	0.22
1986	0.16	0.16	0.16	0.16
1987	0.08	0.08	0.08	0.08
1988	0.15	0.15	0.15	0.15
1989	0.11	0.11	0.11	0.11
1990	0.12	0.12	0.12	0.12
1991	0.11	0.11	0.11	0.11
1992	0.09	0.09	0.09	0.09
1993	0.11	0.11	0.11	0.11
1994	0.12	0.12	0.12	0.12
1995	0.17	0.17	0.17	0.17
1996	0.20	0.20	0.20	0.20
1997	0.24	0.24	0.24	0.24
1998	0.20	0.20	0.20	0.20
1999	0.17	0.17	0.17	0.17
2000	0.22	0.22	0.22	0.22
2001	0.20	0.20	0.20	0.20
2002	0.19	0.19	0.19	0.19
2003	0.24	0.24	0.24	0.24
2004	0.27	0.27	0.27	0.27
2005	0.29	0.29	0.29	0.29
2006	0.32	0.32	0.32	0.32

Log-Likelihood 28809.5 28809.5 28809.5 28809.5

Table A8.1. Candidate models used in the analyses of striped bass tag recoveries in Program MARK.

S(.) r(.)	Constant survival and reporting
S(t) r(t)	Time specific survival and reporting – the global model
S(.) r(t)	Constant survival and time specific reporting
S(p) r(t)	*Regulatory period based survival and time specific reporting
S(p) r(p)	*Regulatory period based survival and reporting
S(.) r(p)	*Constant survival and regulatory period based reporting
S(t) r(p)	*Time specific survival and regulatory period reporting
S(d) r(p)	**Regulatory period based survival with unique terminal year and regulatory period based reporting
S(v) r(p)	***Regulatory period based survival with 2 terminal years unique and regulatory period based reporting
* Periods (p)	1 = {1987-1989}, 2 = {1990-1994}, 3 = {1995- 1999}, 4 = {2000-2002}, 5 = {2003-2006}
** Periods (d)	1 = {1987-1989}, 2 = {1990-1994}, 3 = {1995- 1999}, 4 = {2000-2002}, 5 = {2003-2005}, 6 = {2006}
*** Periods (v)	1 = {1987-1989}, 2 = {1990-1994}, 3 = {1995- 1999}, 4 = {2000-2002}, 5 = {2003-2004}, 6 = {2005-2006}

Table A8.2. Justification of modeling periods used in candidate model set.

Regulatory Period	Explanation
1987-1989	Partial moratorium and large minimum size limits.
1990-1994	Interim fishery under Amendment 4: Commercial fisheries reopen in some states at 80% of historical harvest. Preferred size limit reduced to 28” on coast and 18” in Hudson and Chesapeake Bay. Combination of size limits, seasons, and bag limits used to attain target fishing mortality rate.
1995-1999	Fully recovered fishery under Amendment 5: Target F=0.33. Recreational fisheries: 20” minimum size, 1 fish creel limit, variable season lengths in the producer areas (Chesapeake Bay, Hudson River,) and 28” minimum size, 2 fish creel limit, 365 day season along the coast. Commercial fisheries: flexible quota, same size limits as the recreational fishery. Establishes quotas based on size limits and has paybacks for quota overages. Target reduced to F=0.31 in 1997, minimum size limits maintained.
2000-2002	Addendum IV to Amendment 5: reduce F on age 8 and older striped bass by 14% through creel and size limits. Credit was given to states already more conservative.
2002-2006	Amendment 6: Target F = 0.30. Coastal commercial quotas increased to 100% of historical harvest. Some states’ minimum size limits increased to 28” on the coast.

Table A8.3. Akaike weights used to derive model averaged parameter estimates. Results are for striped bass >28 inches. Models are described in Table A8.1.

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
{S(.)r(.)}	0	0	0	0
{S(.)r(p)}	0.7830	0.0005	0	0.5230
{S(.)r(t)}	0.0004	0	0.0004	0.0459
{S(p)r(p)}	0.1198	0.5500	0.1323	0.1690
{S(p)r(t)}	0.0003	0.0001	0.2132	0.0083
{S(d)r(p)}	0.0511	0.2188	0.1393	0.1035
{S(v)r(p)}	0.0450	0.2305	0.4130	0.0648
{S(t)r(p)}	0.0005	0.0001	0.1008	0.0011
{S(t)r(t)}	0	0	0.0011	0.0845

Producer Area Programs

Model	DE/PA	HUDSON	MDCB	VARAP
{S(.)r(.)}	0.5232	0.0000	0	0
{S(.)r(p)}	0.0792	0.3721	0	0.0265
{S(.)r(t)}	0.0003	0.0025	0	0.0074
{S(p)r(p)}	0.2093	0.3229	0.4988	0.2117
{S(p)r(t)}	0.0014	0.0005	0.0112	0.0006
{S(d)r(p)}	0.0885	0.1454	0.2626	0.0787
{S(v)r(p)}	0.0973	0.1282	0.1926	0.6748
{S(t)r(p)}	0.0009	0.0285	0.0316	0.0001
{S(t)r(t)}	0	0.0000	0.0033	0.0002

Table A8.4. Akaike weights used to derive model averaged parameter estimates. Results are for striped bass >18 inches. Models are described in Table A8.1.

Producer Area Programs

Model	HUDSON	DE/PA	MDCB	VARAP
{S(.)r(.)}	0	0	0	0
{S(.)r(p)}	0	0	0	0
{S(.)r(t)}	0	0.01128	0	0
{S(p)r(p)}	0	0.00816	0	0
{S(p)r(t)}	1.0000	0.43311	0.91164	0
{S(d)r(p)}	0	0.00347	0	0
{S(v)r(p)}	0	0.00300	0	0
{S(t)r(p)}	0	0.00858	0.00004	0
{S(t)r(t)}	0	0.53240	0.08832	1.0000

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
{S(.)r(.)}	0	0	0	0
{S(.)r(p)}	0.8362	0	0	0
{S(.)r(t)}	0.0089	0	0	0
{S(p)r(p)}	0.0837	0	0	0
{S(p)r(t)}	0.0026	0	0.0009	0
{S(d)r(p)}	0.0358	0	0	0
{S(v)r(p)}	0.0316	0	0	0
{S(t)r(p)}	0.0014	0	0.0002	0
{S(t)r(t)}	0	1.0000	0.9989	1.0000

Table A8.5. R/M estimates of exploitation rates of >28 inch striped bass from tagging programs. Exploitation rate, an input to the catch equation, is the proportion of tagged fish that were harvested or killed (with reporting rate adjustment of 0.43, and hooking mortality rate adjustment of 0.08)

Year	NJDEL	NYOHS	NCCOOP	MADFW	VARAP	MDCB	DE/PA	HUDSON	MEAN
1987									
1988		0.05	0.06			0.07		0.10	0.07
1989	0.02	0.04	0.04			0.04		0.07	0.04
1990	0.04	0.07	0.09		0.25	0.08		0.12	0.11
1991	0.31	0.12	0.07		0.36	0.12		0.11	0.18
1992	0.07	0.11	0.13	0.05	0.37	0.12		0.13	0.14
1993	0.09	0.14	0.11	0.07	0.37	0.12	0.13	0.17	0.15
1994	0.05	0.08	0.08	0.05	0.25	0.11	0.12	0.12	0.11
1995	0.11	0.21	0.14	0.05	0.41	0.20	0.14	0.15	0.18
1996	0.20	0.14	0.11	0.09	0.18	0.17	0.32	0.23	0.18
1997	0.23	0.36	0.18	0.17	0.38	0.23	0.27	0.29	0.26
1998	0.35	0.17	0.20	0.10	0.45	0.20	0.28	0.22	0.25
1999	0.12	0.31	0.24	0.13	0.28	0.32	0.15	0.22	0.22
2000	0.14	0.18	0.06	0.13	0.27	0.17	0.30	0.14	0.17
2001	0.16	0.11	0.15	0.09	0.23	0.11	0.27	0.14	0.16
2002	0.12	0.23	0.12	0.08	0.31	0.10	0.24	0.19	0.17
2003	0.15	0.15	0.11	0.11	0.24	0.10	0.17	0.14	0.15
2004	0.16	0.14	0.12	0.10	0.13	0.08	0.24	0.21	0.15
2005	0.17	0.26	0.07	0.07	0.16	0.11	0.15	0.17	0.15
2006	0.14	0.13	0.12	0.10	0.14	0.13	0.21	0.15	0.14

* Years when few or no striped bass were tagged and released.

Table A8.6. R/M estimates of exploitation rates of >18 inch striped bass from tagging programs. Exploitation rate, an input to the catch equation, is the proportion of tagged fish that were harvested or killed (with reporting rate adjustment of 0.43, and hooking mortality rate adjustment of 0.08).

Year	NJDEL	NYOHS	NCCOOP	MADFW	VARAP	MDCB	DE/PA	HUDSON	MEAN
1987						0.01			0.01
1988		0.02	0.03			0.01		0.05	0.03
1989	0.04	0.03	0.03			0.01		0.05	0.03
1990	0.09	0.04	0.06		0.17	0.07		0.15	0.10
1991	0.04	0.06	0.08		0.14	0.10		0.08	0.08
1992	0.04	0.04	0.14	0.05	0.31	0.13		0.10	0.12
1993	0.03	0.05	0.11	0.06	0.23	0.11	0.13	0.10	0.10
1994	0.04	0.04	0.08	0.05	0.25	0.12	0.12	0.08	0.10
1995	0.06	0.05	0.14	0.04	0.19	0.18	0.12	0.05	0.10
1996	0.10	0.03	0.11	0.07	0.15	0.17	0.18	0.16	0.12
1997	0.09	0.04	0.15	0.12	0.20	0.20	0.11	0.22	0.14
1998	0.12	0.03	0.14	0.10	0.15	0.19	0.14	0.17	0.13
1999	0.06	0.05	0.22	0.09	0.13	0.16	0.10	0.14	0.12
2000	0.07	0.03	0.08	0.09	0.13	0.13	0.15	0.10	0.10
2001	0.09	0.05	0.11	0.06	0.18	0.12	0.15	0.10	0.11
2002	0.06	0.06	0.12	0.09	0.17	0.12	0.14	0.08	0.10
2003	0.08	0.04	0.11	0.08	0.17	0.13	0.15	0.10	0.11
2004	0.12	0.04	0.12	0.09	0.11	0.10	0.15	0.13	0.11
2005	0.09	0.03	0.06	0.07	0.12	0.11	0.10	0.09	0.08
2006	0.06	0.03	0.10	0.09	0.10	0.13	0.11	0.10	0.09

* Years when few or no striped bass were tagged and released.

Table A8.7. Unadjusted (unadj.) and bias-corrected (adj.) estimates of survival (S) and fishing mortality (F) for striped bass ≥ 28 inches, from Program MARK and assuming a constant natural mortality, for each tagging program. S(adj.) (converted to Z) is an input to the catch equation.

Coast Programs

Massachusetts

C-hat adjustment = 1.00; bootstrap GOF probability = 0.8 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1992	0.73	0.16	0.06	0.75	-0.11	0.82	0.05	-0.01	0.12
1993	0.73	0.16	0.07	0.57	-0.09	0.80	0.07	0.01	0.14
1994	0.73	0.16	0.06	0.52	-0.07	0.79	0.09	0.03	0.16
1995	0.72	0.18	0.07	0.38	-0.06	0.77	0.12	0.08	0.16
1996	0.72	0.18	0.09	0.26	-0.06	0.77	0.11	0.07	0.16
1997	0.72	0.18	0.10	0.22	-0.06	0.77	0.12	0.08	0.16
1998	0.72	0.18	0.09	0.28	-0.06	0.77	0.11	0.07	0.15
1999	0.72	0.18	0.08	0.28	-0.06	0.76	0.12	0.08	0.16
2000	0.72	0.17	0.07	0.21	-0.04	0.75	0.13	0.08	0.19
2001	0.72	0.17	0.06	0.33	-0.04	0.76	0.13	0.07	0.19
2002	0.72	0.17	0.07	0.32	-0.06	0.77	0.12	0.06	0.18
2003	0.73	0.17	0.05	0.18	-0.02	0.74	0.15	0.09	0.22
2004	0.73	0.17	0.05	0.22	-0.02	0.74	0.15	0.08	0.22
2005	0.73	0.17	0.05	0.27	-0.03	0.75	0.14	0.07	0.22
2006	0.72	0.17	0.06	0.35	-0.05	0.77	0.12	0.04	0.21

New York - Ocean Haul Seine

C-hat adjustment = 1.172; bootstrap GOF probability = 0.094 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1988	0.81	0.06	0.12	0.90	-0.24	1.06	-0.21	-0.31	-0.04
1989	0.81	0.06	0.10	0.86	-0.19	1.01	-0.16	-0.26	0.01
1990	0.63	0.32	0.09	0.66	-0.14	0.73	0.17	0.12	0.23
1991	0.63	0.32	0.11	0.53	-0.15	0.74	0.16	0.11	0.21
1992	0.63	0.32	0.15	0.54	-0.20	0.79	0.09	0.04	0.15
1993	0.63	0.32	0.11	0.43	-0.12	0.71	0.19	0.14	0.25
1994	0.63	0.32	0.11	0.49	-0.13	0.72	0.17	0.12	0.23
1995	0.65	0.28	0.15	0.34	-0.14	0.76	0.13	0.07	0.20
1996	0.65	0.28	0.14	0.30	-0.11	0.73	0.16	0.10	0.23
1997	0.65	0.28	0.16	0.21	-0.10	0.72	0.18	0.12	0.24
1998	0.65	0.28	0.11	0.19	-0.05	0.69	0.23	0.17	0.29
1999	0.65	0.28	0.14	0.10	-0.04	0.68	0.24	0.18	0.31
2000	0.78	0.10	0.12	0.22	-0.07	0.84	0.03	-0.08	0.21
2001	0.78	0.10	0.10	0.24	-0.06	0.83	0.04	-0.07	0.22
2002	0.78	0.10	0.11	0.40	-0.11	0.88	-0.02	-0.13	0.16
2003	0.51	0.53	0.08	0.21	-0.05	0.53	0.49	0.28	0.74
2004	0.51	0.53	0.10	0.35	-0.09	0.56	0.44	0.23	0.70
2005	0.52	0.50	0.13	0.17	-0.06	0.55	0.44	0.16	0.86
2006	0.53	0.48	0.09	0.18	-0.04	0.56	0.44	0.11	0.98

Table A8.7 continued.

New Jersey - Delaware Bay

C-hat adjustment = 1.00; bootstrap GOF probability = 0.79 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1989	0.89	-0.04	0.11	1.00	0.00	0.89	-0.04	-0.11	0.14
1990	0.64	0.29	0.12	0.50	-0.15	0.75	0.13	0.00	0.30
1991	0.61	0.34	0.25	0.38	-0.33	0.91	-0.05	-0.22	0.17
1992	0.63	0.31	0.09	1.00	-0.20	0.80	0.08	-0.04	0.22
1993	0.63	0.31	0.10	0.77	-0.18	0.76	0.12	0.00	0.26
1994	0.64	0.30	0.11	0.79	-0.20	0.79	0.08	-0.03	0.21
1995	0.67	0.25	0.11	0.61	-0.16	0.79	0.08	0.02	0.14
1996	0.66	0.26	0.13	0.42	-0.15	0.78	0.10	0.05	0.16
1997	0.67	0.26	0.09	0.42	-0.10	0.74	0.15	0.10	0.21
1998	0.66	0.27	0.16	0.30	-0.14	0.76	0.12	0.05	0.19
1999	0.67	0.25	0.12	0.30	-0.10	0.74	0.15	0.09	0.21
2000	0.75	0.13	0.10	0.30	-0.07	0.81	0.06	-0.02	0.15
2001	0.75	0.14	0.09	0.29	-0.07	0.81	0.06	-0.01	0.16
2002	0.75	0.13	0.08	0.34	-0.07	0.81	0.07	-0.01	0.16
2003	0.53	0.48	0.10	0.35	-0.09	0.58	0.39	0.28	0.52
2004	0.53	0.49	0.11	0.36	-0.10	0.59	0.38	0.27	0.52
2005	0.47	0.60	0.13	0.22	-0.08	0.51	0.52	0.24	0.89
2006	0.49	0.57	0.11	0.32	-0.09	0.54	0.47	0.17	0.90

North Carolina - Cooperative Winter Trawl Survey

C-hat adjustment = 1.395; bootstrap GOF probability = 0.496 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1988	0.70	0.20	0.09	0.72	-0.16	0.84	0.03	-0.13	0.29
1989	0.68	0.23	0.06	0.78	-0.10	0.76	0.12	0.00	0.29
1990	0.68	0.24	0.07	0.64	-0.11	0.76	0.12	0.03	0.24
1991	0.68	0.24	0.09	0.56	-0.12	0.77	0.12	0.03	0.22
1992	0.70	0.21	0.10	0.50	-0.12	0.80	0.08	-0.09	0.35
1993	0.68	0.23	0.09	0.47	-0.10	0.76	0.12	0.00	0.27
1994	0.67	0.25	0.08	0.50	-0.09	0.74	0.15	0.03	0.32
1995	0.68	0.23	0.10	0.34	-0.09	0.75	0.14	-0.02	0.39
1996	0.66	0.27	0.05	0.28	-0.03	0.68	0.24	0.15	0.34
1997	0.65	0.29	0.09	0.27	-0.06	0.69	0.22	0.07	0.43
1998	0.66	0.27	0.11	0.22	-0.07	0.71	0.20	0.06	0.38
1999	0.68	0.24	0.10	0.23	-0.06	0.72	0.18	-0.01	0.51
2000	0.66	0.26	0.05	0.31	-0.04	0.69	0.22	0.07	0.45
2001	0.68	0.24	0.09	0.24	-0.05	0.72	0.18	0.09	0.31
2002	0.69	0.22	0.06	0.31	-0.05	0.72	0.18	0.05	0.35
2003	0.66	0.27	0.06	0.27	-0.04	0.69	0.23	0.13	0.35
2004	0.68	0.24	0.07	0.27	-0.05	0.71	0.19	0.01	0.49
2005	0.65	0.28	0.05	0.27	-0.03	0.67	0.25	0.10	0.47
2006	0.66	0.27	0.07	0.28	-0.05	0.69	0.22	0.12	0.33

Table A8.7. Continued.

Producer Area Programs

Delaware / Pennsylvania - Delaware River

C-hat adjustment = 1.02; bootstrap GOF probability = 0.79 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1993	0.71	0.20	0.11	0.29	-0.084	0.77	0.11	-0.21	0.59
1994	0.70	0.20	0.11	0.33	-0.095	0.78	0.10	-0.22	0.58
1995	0.60	0.37	0.12	0.40	-0.125	0.68	0.23	0.16	0.32
1996	0.60	0.37	0.14	0.28	-0.109	0.67	0.25	0.18	0.34
1997	0.60	0.37	0.11	0.31	-0.089	0.65	0.28	0.20	0.36
1998	0.59	0.37	0.14	0.18	-0.074	0.64	0.29	0.22	0.38
1999	0.59	0.37	0.09	0.19	-0.044	0.62	0.32	0.24	0.41
2000	0.60	0.36	0.14	0.17	-0.070	0.65	0.29	0.20	0.39
2001	0.60	0.36	0.14	0.10	-0.043	0.63	0.31	0.23	0.41
2002	0.60	0.35	0.09	0.20	-0.046	0.63	0.31	0.21	0.41
2003	0.60	0.36	0.11	0.33	-0.095	0.66	0.26	0.16	0.38
2004	0.60	0.36	0.11	0.24	-0.071	0.65	0.29	0.18	0.40
2005	0.60	0.35	0.10	0.25	-0.065	0.65	0.29	0.16	0.43
2006	0.60	0.36	0.11	0.18	-0.054	0.64	0.30	0.14	0.50

Maryland - Chesapeake Bay Spring Spawning Stock

C-hat adjustment = 1.0; bootstrap GOF probability = 0.86 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1987	0.90	-0.05	0.03		0.00	0.90	-0.05	-0.12	0.19
1988	0.90	-0.05	0.04	0.67	-0.06	0.96	-0.11	-0.18	0.10
1989	0.90	-0.05	0.05	0.79	-0.09	0.99	-0.14	-0.21	0.07
1990	0.67	0.26	0.07	0.57	-0.09	0.73	0.16	0.11	0.22
1991	0.66	0.26	0.12	0.59	-0.18	0.81	0.07	0.00	0.14
1992	0.66	0.26	0.11	0.52	-0.14	0.78	0.10	0.06	0.15
1993	0.67	0.26	0.10	0.46	-0.11	0.75	0.14	0.09	0.19
1994	0.67	0.26	0.09	0.47	-0.11	0.75	0.14	0.09	0.20
1995	0.64	0.29	0.12	0.26	-0.08	0.70	0.21	0.16	0.26
1996	0.64	0.29	0.09	0.28	-0.07	0.69	0.22	0.17	0.28
1997	0.64	0.29	0.11	0.22	-0.07	0.69	0.22	0.16	0.29
1998	0.64	0.30	0.09	0.19	-0.05	0.67	0.25	0.18	0.32
1999	0.64	0.29	0.12	0.19	-0.06	0.68	0.23	0.17	0.29
2000	0.61	0.34	0.08	0.19	-0.04	0.64	0.30	0.19	0.43
2001	0.61	0.35	0.07	0.25	-0.05	0.64	0.30	0.19	0.43
2002	0.61	0.34	0.06	0.36	-0.05	0.65	0.28	0.18	0.42
2003	0.62	0.33	0.07	0.20	-0.04	0.65	0.29	0.15	0.47
2004	0.62	0.32	0.05	0.17	-0.02	0.63	0.30	0.16	0.49
2005	0.63	0.32	0.06	0.23	-0.03	0.65	0.28	0.12	0.50
2006	0.61	0.35	0.07	0.22	-0.04	0.63	0.31	0.08	0.66

Table A8.7 continued.

Virginia - Rappahannock River

C-hat adjustment = 1.16; bootstrap GOF probability = 0.16 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1990	0.63	0.31	0.09	0.58	-0.13	0.72	0.18	0.10	0.26
1991	0.63	0.31	0.09	0.56	-0.13	0.72	0.17	0.10	0.26
1992	0.63	0.31	0.12	0.53	-0.17	0.76	0.12	0.05	0.21
1993	0.63	0.31	0.10	0.35	-0.09	0.69	0.21	0.14	0.30
1994	0.63	0.31	0.08	0.32	-0.07	0.68	0.24	0.16	0.33
1995	0.59	0.38	0.13	0.20	-0.08	0.64	0.30	0.21	0.40
1996	0.59	0.38	0.05	0.13	-0.02	0.60	0.37	0.28	0.47
1997	0.59	0.38	0.08	0.17	-0.04	0.61	0.35	0.26	0.45
1998	0.59	0.38	0.13	0.22	-0.08	0.64	0.29	0.20	0.40
1999	0.59	0.38	0.10	0.20	-0.06	0.62	0.32	0.23	0.43
2000	0.67	0.25	0.08	0.35	-0.07	0.72	0.18	0.07	0.33
2001	0.67	0.25	0.07	0.30	-0.05	0.71	0.20	0.09	0.35
2002	0.67	0.25	0.09	0.30	-0.07	0.72	0.18	0.06	0.32
2003	0.52	0.51	0.09	0.25	-0.06	0.55	0.45	0.24	0.71
2004	0.52	0.51	0.06	0.32	-0.05	0.55	0.46	0.25	0.72
2005	0.62	0.32	0.06	0.24	-0.04	0.65	0.29	0.01	0.78
2006	0.63	0.32	0.07	0.29	-0.05	0.66	0.27	-0.01	0.78

Hudson River

C-hat adjustment = 0.83; bootstrap GOF probability = 0.11 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1988	0.71	0.20	0.09	0.56	-0.12	0.80	0.07	-0.05	0.24
1989	0.70	0.20	0.11	0.79	-0.20	0.88	-0.02	-0.14	0.15
1990	0.64	0.29	0.13	0.69	-0.22	0.83	0.04	-0.01	0.09
1991	0.65	0.29	0.11	0.61	-0.15	0.76	0.12	0.08	0.17
1992	0.64	0.29	0.13	0.61	-0.19	0.80	0.07	0.03	0.12
1993	0.64	0.29	0.13	0.55	-0.18	0.78	0.09	0.05	0.14
1994	0.65	0.29	0.12	0.60	-0.18	0.79	0.09	0.05	0.14
1995	0.65	0.28	0.11	0.46	-0.13	0.75	0.14	0.10	0.18
1996	0.65	0.28	0.13	0.29	-0.10	0.73	0.17	0.13	0.21
1997	0.65	0.28	0.16	0.24	-0.11	0.73	0.16	0.12	0.20
1998	0.65	0.28	0.13	0.28	-0.10	0.72	0.17	0.14	0.21
1999	0.65	0.28	0.13	0.31	-0.11	0.73	0.16	0.12	0.20
2000	0.66	0.26	0.08	0.40	-0.08	0.72	0.18	0.12	0.24
2001	0.66	0.26	0.08	0.33	-0.06	0.70	0.20	0.15	0.26
2002	0.66	0.26	0.11	0.20	-0.06	0.70	0.20	0.14	0.28
2003	0.67	0.25	0.09	0.40	-0.09	0.74	0.15	0.08	0.23
2004	0.67	0.25	0.11	0.25	-0.07	0.72	0.17	0.10	0.26
2005	0.67	0.24	0.10	0.32	-0.08	0.73	0.16	0.08	0.26
2006	0.67	0.25	0.09	0.28	-0.06	0.71	0.19	0.09	0.30

Table A8.8. Unadjusted (unadj.) and bias-corrected (adj.) estimates of survival (S) and fishing mortality (F) for striped bass ≥ 18 inches, from Program MARK and assuming a constant natural mortality, for each tagging program. S(adj.) (converted to Z) is an input to the catch equation.

Producer Area Programs

Hudson River

C-hat adjustment = 0.75129; bootstrap GOF probability = 0.01 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1988	0.93	-0.08	0.07	0.75	-0.11	1.05	-0.19	-0.26	0.38
1989	0.33	0.96	0.08	0.83	-0.16	0.39	0.79	0.64	0.96
1990	0.77	0.11	0.25	0.81	-0.52	1.60	-0.62	-0.66	-0.58
1991	0.84	0.02	0.12	0.75	-0.21	1.07	-0.22	-0.31	-0.01
1992	0.63	0.32	0.11	0.64	-0.16	0.75	0.14	0.01	0.30
1993	0.67	0.26	0.10	0.64	-0.16	0.79	0.09	-0.05	0.28
1994	0.68	0.23	0.10	0.67	-0.15	0.80	0.07	-0.07	0.29
1995	0.65	0.28	0.09	0.50	-0.11	0.73	0.16	0.03	0.35
1996	0.64	0.30	0.11	0.44	-0.12	0.72	0.17	0.00	0.43
1997	0.66	0.26	0.13	0.31	-0.11	0.74	0.15	-0.04	0.44
1998	0.68	0.23	0.11	0.33	-0.10	0.76	0.13	-0.02	0.35
1999	0.57	0.42	0.10	0.38	-0.10	0.63	0.31	0.15	0.52
2000	0.88	-0.02	0.08	0.57	-0.11	0.98	-0.13	-0.23	0.21
2001	0.75	0.13	0.07	0.51	-0.08	0.82	0.05	-0.11	0.36
2002	0.49	0.57	0.07	0.58	-0.10	0.54	0.47	0.27	0.71
2003	0.67	0.26	0.09	0.55	-0.11	0.75	0.14	-0.01	0.34
2004	0.71	0.19	0.09	0.44	-0.10	0.79	0.08	-0.07	0.34
2005	0.70	0.21	0.08	0.55	-0.10	0.77	0.11	-0.09	0.48
2006	0.66	0.26	0.07	0.43	-0.08	0.72	0.18	0.11	0.27

Delaware / Pennsylvania - Delaware River

C-hat adjustment = 0.80; bootstrap GOF probability = 0.89 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj)	95%UCL F(adj)
1993	0.72	0.18	0.10	0.42	-0.10	0.80	0.08	-0.13	0.49
1994	0.62	0.32	0.10	0.58	-0.14	0.72	0.17	-0.02	0.45
1995	0.53	0.49	0.12	0.56	-0.16	0.63	0.31	0.05	0.67
1996	0.73	0.17	0.16	0.54	-0.23	0.94	-0.09	-0.32	0.51
1997	0.67	0.25	0.09	0.52	-0.11	0.75	0.13	-0.06	0.46
1998	0.57	0.41	0.10	0.53	-0.13	0.66	0.27	0.08	0.52
1999	0.56	0.43	0.08	0.53	-0.10	0.62	0.33	0.12	0.60
2000	0.58	0.39	0.11	0.42	-0.11	0.66	0.27	0.13	0.46
2001	0.61	0.35	0.10	0.41	-0.11	0.68	0.24	0.07	0.46
2002	0.58	0.40	0.08	0.40	-0.07	0.62	0.32	0.16	0.53
2003	0.53	0.49	0.11	0.46	-0.13	0.61	0.35	0.11	0.67
2004	0.46	0.63	0.08	0.38	-0.08	0.49	0.55	0.28	0.91
2005	0.50	0.53	0.11	0.51	-0.14	0.59	0.38	0.11	0.77
2006	0.50	0.55	0.10	0.53	-0.13	0.57	0.41	0.28	0.57

Table A8.8 continued.

Maryland - Chesapeake Bay Spring Spawning Stock

C-hat adjustment = 1.0005; bootstrap GOF probability = 0.11 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj.)	95%UCL F(adj.)
1987	0.85	0.02	0.07	0.95	-0.15	0.99	-0.14	-0.19	-0.08
1988	0.84	0.02	0.04	0.84	-0.08	0.91	-0.05	-0.11	0.03
1989	0.86	0.01	0.03	0.93	-0.07	0.92	-0.07	-0.14	0.06
1990	0.63	0.31	0.06	0.58	-0.07	0.68	0.23	0.17	0.30
1991	0.64	0.30	0.08	0.46	-0.09	0.70	0.20	0.15	0.26
1992	0.63	0.31	0.11	0.43	-0.12	0.72	0.18	0.13	0.23
1993	0.63	0.31	0.09	0.38	-0.08	0.69	0.22	0.17	0.27
1994	0.64	0.30	0.10	0.43	-0.11	0.71	0.19	0.15	0.24
1995	0.59	0.38	0.12	0.32	-0.10	0.65	0.27	0.22	0.34
1996	0.59	0.38	0.11	0.35	-0.10	0.65	0.28	0.21	0.35
1997	0.59	0.37	0.11	0.27	-0.08	0.64	0.29	0.20	0.40
1998	0.57	0.41	0.11	0.25	-0.07	0.62	0.33	0.19	0.50
1999	0.58	0.39	0.11	0.21	-0.06	0.62	0.33	0.25	0.42
2000	0.48	0.57	0.09	0.36	-0.09	0.53	0.48	0.37	0.61
2001	0.48	0.59	0.08	0.33	-0.06	0.51	0.52	0.41	0.65
2002	0.49	0.57	0.07	0.32	-0.06	0.52	0.51	0.38	0.66
2003	0.52	0.50	0.09	0.24	-0.05	0.55	0.44	0.30	0.62
2004	0.52	0.51	0.07	0.25	-0.04	0.54	0.47	0.32	0.63
2005	0.51	0.52	0.06	0.28	-0.04	0.53	0.48	0.31	0.69
2006	0.52	0.50	0.09	0.27	-0.06	0.55	0.45	0.33	0.58

Virginia - Rappahannock River

C-hat adjustment = 1.60; bootstrap GOF probability = 0.108 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj.)	95%UCL F(adj.)
1990	0.82	0.05	0.11	0.48	-0.14	0.95	-0.10	-0.24	0.25
1991	0.28	1.14	0.06	0.52	-0.08	0.30	1.05	0.70	1.45
1992	0.80	0.07	0.12	0.41	-0.14	0.94	-0.09	-0.27	0.81
1993	0.60	0.35	0.09	0.46	-0.11	0.68	0.24	-0.07	0.84
1994	0.57	0.42	0.09	0.38	-0.09	0.62	0.32	-0.01	0.92
1995	0.68	0.23	0.08	0.26	-0.05	0.72	0.17	-0.08	0.77
1996	0.64	0.30	0.06	0.27	-0.04	0.67	0.26	-0.03	0.85
1997	0.57	0.42	0.07	0.33	-0.06	0.60	0.36	0.06	0.84
1998	0.41	0.73	0.06	0.36	-0.06	0.44	0.67	0.34	1.11
1999	0.37	0.85	0.08	0.29	-0.06	0.39	0.79	0.47	1.18
2000	0.43	0.69	0.07	0.44	-0.07	0.47	0.61	0.34	0.96
2001	0.48	0.59	0.07	0.37	-0.07	0.51	0.52	0.17	1.04
2002	0.62	0.33	0.06	0.37	-0.06	0.66	0.27	-0.04	0.88
2003	0.76	0.12	0.07	0.27	-0.05	0.80	0.07	-0.14	0.70
2004	0.31	1.03	0.05	0.28	-0.04	0.32	0.99	0.58	1.48
2005	0.37	0.83	0.05	0.28	-0.03	0.39	0.80	0.35	1.41
2006	0.51	0.51	0.07	0.36	-0.07	0.55	0.45	0.16	0.85

Table A8.8 continued.

Coast Programs

North Carolina - Cooperative Winter Trawl Survey

C-hat adjustment = 2.55; bootstrap GOF probability < 0.001 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj.)	95%UCL F(adj.)
1988	0.91	-0.06	0.09	0.85	-0.17	1.10	-0.24	-0.27	-0.21
1989	0.62	0.32	0.04	0.89	-0.08	0.68	0.24	0.06	0.49
1990	0.54	0.47	0.07	0.69	-0.11	0.60	0.36	0.18	0.58
1991	0.63	0.31	0.09	0.60	-0.13	0.72	0.18	0.00	0.43
1992	0.78	0.10	0.10	0.51	-0.12	0.88	-0.03	-0.21	0.47
1993	0.79	0.09	0.09	0.50	-0.10	0.88	-0.02	-0.19	0.44
1994	0.48	0.58	0.07	0.55	-0.09	0.53	0.48	0.29	0.71
1995	0.91	-0.05	0.09	0.47	-0.11	1.02	-0.17	-0.19	-0.14
1996	0.57	0.41	0.05	0.42	-0.05	0.60	0.36	0.14	0.68
1997	0.50	0.54	0.08	0.37	-0.07	0.54	0.46	0.18	0.86
1998	0.64	0.29	0.10	0.36	-0.09	0.71	0.19	-0.05	0.65
1999	0.91	-0.06	0.09	0.34	-0.08	0.99	-0.14	-0.17	-0.11
2000	0.30	1.04	0.06	0.47	-0.06	0.33	0.97	0.75	1.22
2001	0.58	0.40	0.08	0.41	-0.08	0.62	0.32	0.13	0.58
2002	0.56	0.43	0.07	0.41	-0.07	0.60	0.35	0.15	0.63
2003	0.57	0.42	0.07	0.36	-0.06	0.60	0.35	0.14	0.65
2004	0.93	-0.08	0.07	0.37	-0.06	0.99	-0.14	-0.16	-0.13
2005	0.29	1.11	0.04	0.41	-0.03	0.29	1.07	0.80	1.38
2006	0.62	0.33	0.07	0.35	-0.06	0.66	0.27	0.17	0.39

New Jersey - Delaware Bay

C-hat adjustment = 1.25; bootstrap GOF probability = 0.08 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Released	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj.)	95%UCL F(adj.)
1989	0.81	0.06	0.12	0.92	-0.25	1.08	-0.23	-0.41	0.50
1990	0.83	0.04	0.12	0.83	-0.23	1.09	-0.23	-0.40	0.80
1991	0.57	0.42	0.09	0.77	-0.15	0.67	0.26	0.01	0.61
1992	0.62	0.32	0.08	0.88	-0.16	0.74	0.15	0.00	0.36
1993	0.54	0.47	0.08	0.84	-0.16	0.64	0.30	0.18	0.44
1994	0.66	0.27	0.08	0.86	-0.16	0.79	0.09	-0.01	0.21
1995	0.81	0.06	0.09	0.66	-0.14	0.94	-0.09	-0.18	0.05
1996	0.72	0.19	0.12	0.60	-0.17	0.86	0.00	-0.15	0.23
1997	0.54	0.46	0.10	0.50	-0.12	0.61	0.34	0.16	0.57
1998	0.71	0.20	0.12	0.47	-0.15	0.83	0.03	-0.09	0.22
1999	0.70	0.21	0.08	0.50	-0.10	0.77	0.11	0.00	0.25
2000	0.69	0.22	0.09	0.50	-0.10	0.77	0.11	0.01	0.26
2001	0.80	0.08	0.09	0.46	-0.10	0.89	-0.03	-0.14	0.17
2002	0.55	0.45	0.06	0.42	-0.06	0.58	0.39	0.24	0.56
2003	0.53	0.48	0.09	0.48	-0.10	0.59	0.37	0.23	0.54
2004	0.66	0.26	0.10	0.43	-0.11	0.75	0.14	-0.02	0.39
2005	0.55	0.45	0.10	0.42	-0.10	0.61	0.34	0.11	0.67
2006	0.57	0.41	0.08	0.45	-0.09	0.62	0.32	0.23	0.42

Table A8.8. Continued.

Massachusetts

C-hat adjustment= 1.026, bootstrap GOF probability = 0.43 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	F(adj.)	95%LCL F(adj.)	95%UCL F(adj.)
1992	0.74	0.16	0.07	0.76	-0.11	0.83	0.03	-0.01	0.08
1993	0.74	0.16	0.06	0.59	-0.08	0.80	0.07	0.03	0.12
1994	0.74	0.16	0.06	0.58	-0.08	0.80	0.08	0.03	0.13
1995	0.73	0.16	0.06	0.47	-0.06	0.78	0.10	0.07	0.13
1996	0.73	0.16	0.09	0.43	-0.10	0.81	0.06	0.03	0.10
1997	0.73	0.16	0.08	0.28	-0.06	0.78	0.10	0.07	0.14
1998	0.73	0.16	0.08	0.33	-0.07	0.78	0.09	0.06	0.13
1999	0.73	0.16	0.06	0.32	-0.05	0.77	0.12	0.09	0.15
2000	0.73	0.16	0.05	0.24	-0.03	0.76	0.13	0.09	0.18
2001	0.73	0.16	0.05	0.35	-0.04	0.76	0.12	0.08	0.17
2002	0.73	0.16	0.07	0.29	-0.05	0.77	0.11	0.07	0.16
2003	0.73	0.16	0.05	0.23	-0.03	0.75	0.14	0.09	0.19
2004	0.73	0.16	0.04	0.22	-0.02	0.75	0.14	0.09	0.20
2005	0.73	0.16	0.05	0.29	-0.04	0.76	0.13	0.07	0.19
2006	0.73	0.16	0.06	0.34	-0.05	0.77	0.12	0.05	0.19

New York Ocean Haul Seine

C-hat adjustment = 1.923; bootstrap GOF probability = 0 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery	% Released	Bias Live Release	S(adj.)	F(adj.)	LCLM (F)	95%UCL F(adj.)
1988	0.55	0.45	0.08	0.94	-0.16	0.65	0.28	0.12	0.47
1989	0.91	-0.05	0.09	0.93	-0.19	1.12	-0.26	-0.28	-0.24
1990	0.55	0.45	0.07	0.83	-0.14	0.64	0.30	0.13	0.52
1991	0.76	0.13	0.08	0.69	-0.13	0.87	-0.01	-0.15	0.26
1992	0.93	-0.08	0.07	0.72	-0.11	1.05	-0.20	-0.21	-0.18
1993	0.50	0.55	0.05	0.62	-0.08	0.54	0.47	0.30	0.68
1994	0.68	0.23	0.06	0.71	-0.10	0.76	0.13	-0.02	0.33
1995	0.94	-0.09	0.06	0.55	-0.08	1.02	-0.17	-0.18	-0.16
1996	0.74	0.15	0.06	0.61	-0.08	0.81	0.07	-0.09	0.34
1997	0.64	0.30	0.05	0.57	-0.07	0.69	0.22	0.02	0.54
1998	0.49	0.56	0.05	0.57	-0.07	0.53	0.49	0.26	0.78
1999	0.69	0.21	0.06	0.49	-0.06	0.74	0.15	-0.05	0.51
2000	0.59	0.38	0.05	0.58	-0.06	0.62	0.32	0.10	0.65
2001	0.62	0.33	0.05	0.51	-0.06	0.66	0.27	0.04	0.63
2002	0.74	0.16	0.06	0.52	-0.07	0.80	0.08	-0.13	0.58
2003	0.56	0.42	0.05	0.43	-0.05	0.59	0.37	0.08	0.86
2004	0.58	0.39	0.05	0.48	-0.06	0.62	0.33	0.03	0.86
2005	0.41	0.74	0.05	0.65	-0.08	0.44	0.66	0.27	1.19
2006	0.51	0.52	0.07	0.63	-0.10	0.57	0.41	0.10	0.87

Table A8.9. Estimates of fishing mortality for ≥ 28 inch striped bass obtained without assuming constant natural mortality, based on exploitation rate and Baranov's catch equation, using bias-adjusted estimates of survival from Table A8.7. Column headings are S: bias-corrected survival rate, Z: total instantaneous mortality, A: annual percentage mortality expressed as a proportion, U: annual exploitation rate, F: instantaneous fishing mortality rate and M: instantaneous natural mortality rate.

Coast Programs

Massachusetts Fall Tagging

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989					
1990					
1991					
1992	0.20	0.18	0.05	0.06	0.14
1993	0.22	0.20	0.07	0.08	0.14
1994	0.24	0.21	0.05	0.05	0.19
1995	0.27	0.23	0.05	0.06	0.21
1996	0.26	0.23	0.09	0.11	0.16
1997	0.27	0.23	0.17	0.20	0.07
1998	0.26	0.23	0.10	0.12	0.15
1999	0.27	0.24	0.13	0.15	0.12
2000	0.28	0.25	0.13	0.15	0.13
2001	0.28	0.24	0.09	0.10	0.18
2002	0.27	0.23	0.08	0.09	0.18
2003	0.30	0.26	0.11	0.13	0.17
2004	0.30	0.26	0.10	0.11	0.18
2005	0.29	0.25	0.07	0.08	0.20
2006	0.27	0.23	0.10	0.11	0.16
Average	0.26	0.23	0.09	0.11	0.16

New York Ocean Haul Seine Fall Tagging

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988	-0.06	-0.06	0.05	0.05	-0.11
1989	-0.01	-0.01	0.04	0.04	-0.05
1990	0.32	0.27	0.07	0.08	0.24
1991	0.31	0.26	0.12	0.14	0.17
1992	0.24	0.21	0.11	0.13	0.11
1993	0.34	0.29	0.14	0.17	0.18
1994	0.32	0.28	0.08	0.10	0.22
1995	0.28	0.24	0.21	0.24	0.04
1996	0.31	0.27	0.14	0.17	0.15
1997	0.33	0.28	0.36	0.42	-0.09
1998	0.38	0.31	0.17	0.20	0.17
1999	0.39	0.32	0.31	0.37	0.02
2000	0.18	0.16	0.18	0.20	-0.02
2001	0.19	0.17	0.11	0.12	0.07
2002	0.13	0.12	0.23	0.24	-0.11
2003	0.64	0.47	0.15	0.20	0.43
2004	0.59	0.44	0.14	0.19	0.40
2005	0.59	0.45	0.26	0.34	0.25
2006	0.59	0.44	0.13	0.17	0.42
Average	0.32	0.26	0.16	0.19	0.13

New Jersey Delaware Bay February-April

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989	0.11	0.11	0.02	0.02	0.09
1990	0.28	0.25	0.04	0.05	0.23
1991	0.10	0.09	0.31	0.33	-0.23
1992	0.23	0.20	0.07	0.08	0.15
1993	0.27	0.24	0.09	0.10	0.17
1994	0.23	0.21	0.05	0.06	0.17
1995	0.23	0.21	0.11	0.12	0.11
1996	0.25	0.22	0.20	0.23	0.02
1997	0.30	0.26	0.23	0.27	0.04
1998	0.27	0.24	0.35	0.40	-0.13
1999	0.30	0.26	0.12	0.14	0.15
2000	0.21	0.19	0.14	0.15	0.06
2001	0.21	0.19	0.16	0.18	0.04
2002	0.22	0.19	0.12	0.13	0.09
2003	0.54	0.42	0.15	0.19	0.35
2004	0.53	0.41	0.16	0.21	0.33
2005	0.67	0.49	0.17	0.23	0.44
2006	0.62	0.46	0.14	0.19	0.43
Average	0.31	0.26	0.15	0.17	0.14

North Carolina Winter Trawl Survey

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988	0.18	0.16	0.06	0.07	0.11
1989	0.27	0.24	0.04	0.05	0.22
1990	0.27	0.24	0.09	0.10	0.17
1991	0.27	0.23	0.07	0.08	0.18
1992	0.23	0.20	0.13	0.14	0.08
1993	0.27	0.24	0.11	0.13	0.14
1994	0.30	0.26	0.08	0.09	0.21
1995	0.29	0.25	0.14	0.16	0.13
1996	0.39	0.32	0.11	0.13	0.25
1997	0.37	0.31	0.18	0.22	0.15
1998	0.35	0.29	0.20	0.24	0.11
1999	0.33	0.28	0.24	0.28	0.05
2000	0.37	0.31	0.06	0.07	0.30
2001	0.33	0.28	0.15	0.18	0.16
2002	0.33	0.28	0.12	0.14	0.19
2003	0.38	0.31	0.11	0.14	0.24
2004	0.34	0.29	0.12	0.14	0.19
2005	0.40	0.33	0.07	0.09	0.31
2006	0.37	0.31	0.12	0.15	0.22
Average	0.32	0.27	0.12	0.14	0.18

Table A8.9 continued.

Producer Area Programs

Maryland - Chesapeake Bay Spring Spawning Stock

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987	0.17	0.10			0.10
1988	0.17	0.10	0.07	0.08	0.02
1989	0.16	0.10	0.04	0.04	0.06
1990	0.46	0.41	0.08	0.10	0.30
1991	0.45	0.41	0.12	0.15	0.26
1992	0.46	0.41	0.12	0.15	0.26
1993	0.46	0.41	0.12	0.15	0.26
1994	0.45	0.41	0.11	0.14	0.27
1995	0.53	0.44	0.20	0.25	0.19
1996	0.53	0.44	0.17	0.21	0.24
1997	0.52	0.44	0.23	0.29	0.15
1998	0.56	0.45	0.20	0.24	0.20
1999	0.54	0.44	0.32	0.40	0.04
2000	0.72	0.49	0.17	0.22	0.28
2001	0.74	0.50	0.11	0.14	0.36
2002	0.72	0.49	0.10	0.12	0.37
2003	0.65	0.48	0.10	0.13	0.34
2004	0.66	0.47	0.08	0.11	0.37
2005	0.67	0.47	0.11	0.13	0.33
2006	0.65	0.50	0.13	0.16	0.33

Average 0.51 0.40 0.14 0.17 0.24

Virginia - Rappahannock River Spring Spawning Stock

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989					
1990	0.33	0.28	0.25	0.30	0.03
1991	0.32	0.28	0.36	0.43	-0.11
1992	0.27	0.24	0.37	0.42	-0.15
1993	0.36	0.31	0.37	0.44	-0.08
1994	0.39	0.32	0.25	0.31	0.08
1995	0.45	0.36	0.41	0.51	-0.06
1996	0.52	0.40	0.18	0.23	0.29
1997	0.50	0.39	0.38	0.48	0.02
1998	0.45	0.36	0.45	0.56	-0.12
1999	0.48	0.38	0.28	0.35	0.12
2000	0.33	0.28	0.27	0.32	0.01
2001	0.35	0.29	0.23	0.28	0.07
2002	0.33	0.28	0.31	0.36	-0.04
2003	0.60	0.45	0.24	0.32	0.28
2004	0.61	0.45	0.13	0.18	0.43
2005	0.43	0.35	0.16	0.20	0.24
2006	0.41	0.34	0.14	0.16	0.25

Average 0.42 0.34 0.28 0.34 0.07

Delaware River - Delaware/Pennsylvania Spring Spawning Stock

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989					
1990					
1991					
1992					
1993	0.26	0.23	0.13	0.15	0.11
1994	0.25	0.22	0.12	0.14	0.11
1995	0.38	0.32	0.14	0.17	0.22
1996	0.40	0.33	0.32	0.39	0.02
1997	0.43	0.35	0.27	0.33	0.10
1998	0.44	0.36	0.28	0.35	0.10
1999	0.47	0.38	0.15	0.19	0.28
2000	0.44	0.35	0.30	0.37	0.07
2001	0.46	0.37	0.27	0.33	0.13
2002	0.46	0.37	0.24	0.29	0.16
2003	0.41	0.34	0.17	0.21	0.20
2004	0.44	0.35	0.24	0.30	0.14
2005	0.44	0.35	0.15	0.19	0.25
2006	0.45	0.36	0.21	0.26	0.19

Average 0.41 0.33 0.21 0.26 0.15

Hudson River Spring Spawning Stock

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988	0.22	0.20	0.10	0.11	0.11
1989	0.13	0.12	0.07	0.07	0.06
1990	0.19	0.17	0.12	0.13	0.06
1991	0.27	0.24	0.11	0.12	0.15
1992	0.22	0.20	0.13	0.15	0.08
1993	0.24	0.22	0.17	0.19	0.06
1994	0.24	0.21	0.12	0.13	0.11
1995	0.29	0.25	0.15	0.17	0.12
1996	0.32	0.27	0.23	0.27	0.05
1997	0.31	0.27	0.29	0.33	-0.02
1998	0.32	0.28	0.22	0.25	0.07
1999	0.31	0.27	0.22	0.25	0.06
2000	0.33	0.28	0.14	0.16	0.17
2001	0.35	0.30	0.14	0.16	0.19
2002	0.35	0.30	0.19	0.23	0.12
2003	0.30	0.26	0.14	0.16	0.14
2004	0.32	0.28	0.21	0.25	0.08
2005	0.31	0.27	0.17	0.19	0.11
2006	0.34	0.29	0.15	0.18	0.16

Average 0.28 0.24 0.16 0.18 0.10

Table A8.10. Estimates of fishing mortality for ≥ 18 inch striped bass obtained without assuming constant natural mortality, based on exploitation rate and Baranov's catch equation, using bias-adjusted estimates of survival from Table A8.8. The tables also present annual estimates of instantaneous natural mortality, M. Column headings are S: bias-corrected survival rate, Z: total instantaneous mortality, A: annual percentage mortality expressed as a proportion, U: annual exploitation rate, F: instantaneous fishing mortality rate and M: instantaneous natural mortality rate.

Producer Area Programs

Maryland Chesapeake Bay Spring Spawning Stock

Virginia Rappahanock River Spring Spawning Stock Survey

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987	0.17	0.15	0.01	0.01	0.16
1988	0.17	0.16	0.01	0.02	0.16
1989	0.16	0.14	0.01	0.01	0.15
1990	0.46	0.37	0.07	0.08	0.38
1991	0.45	0.36	0.10	0.12	0.33
1992	0.46	0.37	0.13	0.16	0.29
1993	0.46	0.37	0.11	0.14	0.32
1994	0.45	0.36	0.12	0.14	0.31
1995	0.53	0.41	0.18	0.24	0.29
1996	0.53	0.41	0.17	0.21	0.32
1997	0.52	0.41	0.20	0.25	0.27
1998	0.56	0.43	0.19	0.25	0.31
1999	0.54	0.42	0.16	0.21	0.33
2000	0.72	0.52	0.13	0.19	0.54
2001	0.74	0.52	0.12	0.17	0.57
2002	0.72	0.51	0.12	0.16	0.55
2003	0.65	0.48	0.13	0.18	0.47
2004	0.66	0.48	0.10	0.14	0.52
2005	0.67	0.49	0.11	0.15	0.52
2006	0.65	0.48	0.13	0.18	0.48
Average	0.51	0.39	0.11	0.15	0.36

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989					
1990	0.05	0.05	0.17	0.18	-0.13
1991	1.20	0.70	0.14	0.24	0.96
1992	0.06	0.06	0.31	0.32	-0.25
1993	0.39	0.32	0.23	0.28	0.12
1994	0.47	0.38	0.25	0.31	0.16
1995	0.32	0.28	0.19	0.22	0.10
1996	0.41	0.33	0.15	0.18	0.23
1997	0.51	0.40	0.20	0.25	0.26
1998	0.82	0.56	0.15	0.22	0.60
1999	0.94	0.61	0.13	0.20	0.73
2000	0.76	0.53	0.13	0.19	0.57
2001	0.67	0.49	0.18	0.25	0.42
2002	0.42	0.34	0.17	0.21	0.21
2003	0.22	0.20	0.17	0.19	0.03
2004	1.14	0.68	0.11	0.18	0.95
2005	0.95	0.61	0.12	0.18	0.77
2006	0.60	0.45	0.10	0.13	0.46
Average	0.58	0.41	0.17	0.22	0.36

Delaware River - DE/PA Spring Spawning Stock

Hudson River Spring Spawning Stock Survey

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988					
1989					
1990					
1991					
1992					
1993	0.23	0.20	0.13	0.15	0.08
1994	0.32	0.28	0.12	0.14	0.18
1995	0.46	0.37	0.12	0.16	0.31
1996	0.06	0.06	0.18	0.18	-0.12
1997	0.28	0.25	0.11	0.13	0.16
1998	0.42	0.34	0.14	0.17	0.25
1999	0.48	0.38	0.10	0.13	0.35
2000	0.42	0.34	0.15	0.19	0.24
2001	0.39	0.32	0.15	0.18	0.20
2002	0.47	0.38	0.14	0.17	0.30
2003	0.50	0.39	0.15	0.19	0.31
2004	0.70	0.51	0.15	0.21	0.49
2005	0.53	0.41	0.10	0.12	0.41
2006	0.56	0.43	0.11	0.14	0.42
Average	0.42	0.33	0.13	0.16	0.25

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987					
1988	-0.04	-0.05	0.05	0.05	-0.09
1989	0.94	0.61	0.05	0.07	0.87
1990	-0.47	-0.60	0.15	0.12	-0.59
1991	-0.07	-0.07	0.08	0.07	-0.14
1992	0.29	0.25	0.10	0.11	0.18
1993	0.24	0.21	0.10	0.12	0.12
1994	0.22	0.20	0.08	0.09	0.13
1995	0.31	0.27	0.05	0.05	0.26
1996	0.32	0.28	0.16	0.19	0.13
1997	0.30	0.26	0.22	0.25	0.04
1998	0.28	0.24	0.17	0.20	0.08
1999	0.46	0.37	0.14	0.18	0.29
2000	0.02	0.02	0.10	0.10	-0.08
2001	0.20	0.18	0.10	0.11	0.09
2002	0.62	0.46	0.08	0.11	0.51
2003	0.29	0.25	0.10	0.11	0.17
2004	0.23	0.21	0.13	0.15	0.09
2005	0.26	0.23	0.09	0.10	0.16
2006	0.33	0.28	0.10	0.12	0.21
Average	0.25	0.19	0.11	0.12	0.13

Table 8.10 continued.

Coast Programs

Massachusetts Fall Tagging

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1988					
1989					
1990					
1991					
1992	0.18	0.17	0.05	0.06	0.13
1993	0.22	0.20	0.06	0.06	0.16
1994	0.23	0.20	0.04	0.05	0.18
1995	0.25	0.22	0.04	0.04	0.20
1996	0.21	0.19	0.07	0.07	0.14
1997	0.25	0.22	0.12	0.13	0.12
1998	0.24	0.22	0.10	0.11	0.13
1999	0.27	0.23	0.09	0.10	0.17
2000	0.28	0.24	0.09	0.11	0.17
2001	0.27	0.24	0.06	0.07	0.20
2002	0.26	0.23	0.09	0.10	0.16
2003	0.29	0.25	0.08	0.09	0.19
2004	0.29	0.25	0.09	0.10	0.19
2005	0.28	0.24	0.07	0.08	0.20
2006	0.27	0.23	0.09	0.10	0.17
Average	0.25	0.22	0.08	0.09	0.17

New York Ocean Haul Seine Fall Tagging

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1988	0.43	0.35	0.02	0.03	0.40
1989	-0.11	-0.12	0.03	0.03	-0.14
1990	0.45	0.36	0.04	0.05	0.40
1991	0.14	0.13	0.06	0.06	0.08
1992	-0.05	-0.05	0.04	0.04	-0.09
1993	0.62	0.46	0.05	0.06	0.56
1994	0.28	0.24	0.04	0.04	0.23
1995	-0.02	-0.02	0.05	0.05	-0.07
1996	0.22	0.19	0.03	0.03	0.18
1997	0.37	0.31	0.04	0.05	0.33
1998	0.64	0.47	0.03	0.04	0.60
1999	0.30	0.26	0.05	0.05	0.25
2000	0.47	0.38	0.03	0.04	0.43
2001	0.42	0.34	0.05	0.06	0.36
2002	0.23	0.20	0.06	0.07	0.16
2003	0.52	0.41	0.04	0.05	0.48
2004	0.48	0.38	0.04	0.05	0.43
2005	0.81	0.56	0.03	0.05	0.76
2006	0.56	0.43	0.03	0.04	0.52
Average	0.36	0.28	0.04	0.05	0.31

North Carolina Winter Trawl Survey

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1988	-0.09	-0.10	0.03	0.03	-0.13
1989	0.39	0.32	0.03	0.03	0.35
1990	0.51	0.40	0.06	0.08	0.43
1991	0.33	0.28	0.08	0.10	0.23
1992	0.12	0.12	0.14	0.15	-0.02
1993	0.13	0.12	0.11	0.11	0.02
1994	0.63	0.47	0.08	0.11	0.52
1995	-0.02	-0.02	0.14	0.13	-0.15
1996	0.51	0.40	0.11	0.13	0.37
1997	0.61	0.46	0.15	0.21	0.40
1998	0.34	0.29	0.14	0.17	0.18
1999	0.01	0.01	0.22	0.22	-0.21
2000	1.12	0.67	0.08	0.13	0.99
2001	0.47	0.38	0.11	0.14	0.33
2002	0.50	0.40	0.12	0.15	0.35
2003	0.50	0.40	0.11	0.14	0.37
2004	0.01	0.01	0.12	0.12	-0.11
2005	1.22	0.71	0.06	0.10	1.13
2006	0.42	0.34	0.10	0.13	0.29
Average	0.41	0.30	0.10	0.12	0.28

New Jersey Delaware Bay February-April

<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1988					
1989	-0.08	-0.08	0.04	0.03	-0.11
1990	-0.08	-0.09	0.09	0.09	-0.17
1991	0.41	0.33	0.04	0.05	0.35
1992	0.30	0.26	0.04	0.05	0.25
1993	0.45	0.36	0.03	0.04	0.42
1994	0.24	0.21	0.04	0.04	0.20
1995	0.06	0.06	0.06	0.06	0.00
1996	0.15	0.14	0.10	0.11	0.04
1997	0.49	0.39	0.09	0.12	0.37
1998	0.18	0.17	0.12	0.13	0.05
1999	0.26	0.23	0.06	0.07	0.19
2000	0.26	0.23	0.07	0.08	0.18
2001	0.12	0.11	0.09	0.10	0.02
2002	0.54	0.42	0.06	0.08	0.46
2003	0.52	0.41	0.08	0.10	0.42
2004	0.29	0.25	0.12	0.14	0.15
2005	0.49	0.39	0.09	0.11	0.38
2006	0.47	0.38	0.06	0.08	0.39
Average	0.28	0.23	0.07	0.08	0.20

Table A8.11. Coastwide fishing mortality rates, presented as an unweighted average of producer and coastal programs' means developed using the catch equation, and coastwide stock size estimates (in numbers of fish) for age 7+ and age 3+ fish, obtained via "Kill = F * Stock Size".

Catch Equation Method

Year	Fishing Mortality	Age 7+ Kill includes discards	Total Stock Size Thousands
1988	0.06	101.4	1,607
1989	0.04	95	2,608
1990	0.11	222.3	1,996
1991	0.19	296.4	1,526
1992	0.15	262.7	1,715
1993	0.17	380.6	2,211
1994	0.13	475.9	3,741
1995	0.22	740	3,317
1996	0.20	965.3	4,903
1997	0.31	1371.1	4,413
1998	0.29	1080.5	3,755
1999	0.29	1146.8	3,930
2000	0.20	1471.8	7,504
2001	0.17	1583.2	9,399
2002	0.18	2075.4	11,437
2003	0.18	2163.1	12,168
2004	0.16	2376.2	14,727
2005	0.17	2132.5	12,186
2006	0.16	2139.3	12,985

Catch Equation Method

Year	Fishing Mortality	Age 3+ Kill includes discards	Total Stock Size Thousands
1988	0.02	444.9	18,473
1989	0.02	479.9	19,562
1990	0.09	921.3	10,469
1991	0.10	988.4	9,693
1992	0.13	986.9	7,736
1993	0.12	1,437.0	11,993
1994	0.12	1,866.6	15,572
1995	0.14	2,999.7	21,821
1996	0.14	3,376.2	23,624
1997	0.18	4,580.2	24,973
1998	0.17	4,118.3	24,049
1999	0.15	3,704.4	24,194
2000	0.13	5,044.4	37,659
2001	0.14	4,344.0	31,562
2002	0.13	3,889.5	28,890
2003	0.13	4,836.2	36,144
2004	0.13	5,184.8	39,512
2005	0.12	5,125.5	44,350
2006	0.12	5,763.4	47,901

Table A8.12. Unweighted average of annual instantaneous **fishing mortality** for coastal programs, and weighted average of annual instantaneous fishing mortality for producer areas, along with 95% confidence intervals, for striped bass ≥ 28 inches, using the catch equation, without assuming constant natural mortality. When missing values are present, weights do not add to 1.

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1988		0.05		0.07	0.06	0.04	0.08
1989		0.04	0.02	0.05	0.04	0.02	0.05
1990		0.08	0.05	0.10	0.08	0.05	0.11
1991		0.14	0.33	0.08	0.18	0.07	0.30
1992	0.06	0.13	0.08	0.14	0.10	0.06	0.14
1993	0.08	0.17	0.10	0.13	0.12	0.07	0.17
1994	0.05	0.10	0.06	0.09	0.08	0.05	0.10
1995	0.06	0.24	0.12	0.16	0.15	0.09	0.20
1996	0.11	0.17	0.23	0.13	0.16	0.10	0.22
1997	0.20	0.42	0.27	0.22	0.27	0.17	0.38
1998	0.12	0.20	0.40	0.24	0.24	0.14	0.34
1999	0.15	0.37	0.14	0.28	0.23	0.13	0.34
2000	0.15	0.20	0.15	0.07	0.14	0.08	0.21
2001	0.10	0.12	0.18	0.18	0.14	0.09	0.19
2002	0.09	0.24	0.13	0.14	0.15	0.10	0.20
2003	0.13	0.20	0.19	0.14	0.16	0.10	0.22
2004	0.11	0.19	0.21	0.14	0.16	0.11	0.22
2005	0.08	0.34	0.23	0.09	0.19	0.10	0.28
2006	0.11	0.17	0.19	0.15	0.15	0.09	0.22

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987							
1988	0.11		0.08		0.07	0.01	0.12
1989	0.07		0.04		0.04	0.01	0.06
1990	0.13		0.10	0.30	0.15	0.07	0.23
1991	0.12		0.15	0.43	0.20	0.10	0.31
1992	0.15		0.15	0.42	0.20	0.06	0.35
1993	0.19	0.15	0.15	0.44	0.23	0.12	0.33
1994	0.13	0.14	0.14	0.31	0.18	0.09	0.27
1995	0.17	0.17	0.25	0.51	0.30	0.16	0.44
1996	0.27	0.39	0.21	0.23	0.24	0.12	0.35
1997	0.33	0.33	0.29	0.48	0.35	0.19	0.50
1998	0.25	0.35	0.24	0.56	0.34	0.18	0.50
1999	0.25	0.19	0.40	0.35	0.35	0.15	0.55
2000	0.16	0.37	0.22	0.32	0.25	0.13	0.37
2001	0.16	0.33	0.14	0.28	0.19	0.11	0.28
2002	0.23	0.29	0.12	0.36	0.21	0.11	0.32
2003	0.16	0.21	0.13	0.32	0.19	0.10	0.28
2004	0.25	0.30	0.11	0.18	0.16	0.09	0.23
2005	0.19	0.19	0.13	0.20	0.16	0.08	0.24
2006	0.18	0.26	0.16	0.17	0.17	0.09	0.26

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Table A8.13. Unweighted average of annual instantaneous **fishing mortality** for coastal programs, and weighted average of annual instantaneous fishing mortality for producer areas, along with 95% confidence intervals, for striped bass ≥ 18 inches, using the catch equation, without assuming constant natural mortality. When missing values are present, weights do not add to 1.

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted Average*	lower 95% CI	upper 95% CI
1987			0.01		0.01	0.00	0.01
1988	0.05		0.02		0.02	0.01	0.02
1989	0.07		0.01		0.02	0.01	0.02
1990	0.12		0.08	0.18	0.10	0.06	0.15
1991	0.07		0.12	0.24	0.13	0.07	0.20
1992	0.11		0.16	0.32	0.18	0.09	0.28
1993	0.12	0.15	0.14	0.28	0.17	0.10	0.24
1994	0.09	0.14	0.14	0.31	0.18	0.09	0.27
1995	0.05	0.16	0.24	0.22	0.20	0.11	0.30
1996	0.19	0.18	0.21	0.18	0.20	0.11	0.28
1997	0.25	0.13	0.25	0.25	0.24	0.13	0.35
1998	0.20	0.17	0.25	0.22	0.23	0.13	0.33
1999	0.18	0.13	0.21	0.20	0.20	0.10	0.29
2000	0.10	0.19	0.19	0.19	0.18	0.10	0.25
2001	0.11	0.18	0.17	0.25	0.18	0.10	0.26
2002	0.11	0.17	0.16	0.21	0.17	0.09	0.25
2003	0.11	0.19	0.18	0.19	0.17	0.10	0.25
2004	0.15	0.21	0.14	0.18	0.16	0.10	0.22
2005	0.10	0.12	0.15	0.18	0.15	0.08	0.22
2006	0.12	0.14	0.18	0.13	0.16	0.09	0.22

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.03		0.03	0.03	0.02	0.04
1989		0.03	0.03	0.03	0.03	0.02	0.04
1990		0.05	0.09	0.08	0.07	0.05	0.10
1991		0.06	0.05	0.10	0.07	0.05	0.09
1992	0.06	0.04	0.05	0.15	0.07	0.05	0.10
1993	0.06	0.06	0.04	0.11	0.07	0.05	0.09
1994	0.05	0.04	0.04	0.11	0.06	0.04	0.08
1995	0.04	0.05	0.06	0.13	0.07	0.05	0.10
1996	0.07	0.03	0.11	0.13	0.09	0.06	0.12
1997	0.13	0.05	0.12	0.21	0.13	0.08	0.17
1998	0.11	0.04	0.13	0.17	0.11	0.07	0.15
1999	0.10	0.05	0.07	0.22	0.11	0.06	0.16
2000	0.11	0.04	0.08	0.13	0.09	0.06	0.12
2001	0.07	0.06	0.10	0.14	0.09	0.06	0.12
2002	0.10	0.07	0.08	0.15	0.10	0.07	0.13
2003	0.09	0.05	0.10	0.14	0.09	0.06	0.12
2004	0.10	0.05	0.14	0.12	0.10	0.07	0.13
2005	0.08	0.05	0.11	0.10	0.08	0.06	0.11
2006	0.10	0.04	0.08	0.13	0.09	0.06	0.11

Table A8.14. Unweighted average of annual instantaneous **natural mortality** for coastal programs, and weighted average of annual instantaneous natural mortality for producer areas, along with 95% confidence intervals, for striped bass ≥ 28 inches, using the catch equation. Negative values of M are not included in the means. When negative or missing values are present, weights do not add to 1.

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		-0.11		0.11	0.11	0.07	0.16
1989		-0.05	0.09	0.22	0.16	0.12	0.20
1990		0.24	0.23	0.17	0.22	0.17	0.26
1991		0.17	-0.23	0.18	0.18	0.14	0.21
1992	0.14	0.11	0.15	0.08	0.12	0.05	0.19
1993	0.14	0.18	0.17	0.14	0.16	0.09	0.22
1994	0.19	0.22	0.17	0.21	0.20	0.15	0.25
1995	0.21	0.04	0.11	0.13	0.12	0.05	0.19
1996	0.16	0.15	0.02	0.25	0.15	0.08	0.21
1997	0.07	-0.09	0.04	0.15	0.09	0.01	0.17
1998	0.15	0.17	-0.13	0.11	0.07	-0.01	0.15
1999	0.12	0.02	0.15	0.05	0.09	-0.03	0.20
2000	0.13	-0.02	0.06	0.30	0.16	0.10	0.22
2001	0.18	0.07	0.04	0.16	0.11	0.04	0.18
2002	0.18	-0.11	0.09	0.19	0.15	0.10	0.20
2003	0.17	0.43	0.35	0.24	0.30	0.22	0.38
2004	0.18	0.40	0.33	0.19	0.28	0.19	0.36
2005	0.20	0.25	0.44	0.31	0.30	0.17	0.43
2006	0.16	0.42	0.43	0.22	0.31	0.18	0.43

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.10		0.07	-0.01	0.15
1988	0.11		0.02		0.03	-0.07	0.13
1989	0.06		0.06		0.05	-0.03	0.13
1990	0.06		0.30	0.03	0.17	0.09	0.26
1991	0.15		0.26	-0.11	0.16	0.08	0.23
1992	0.08		0.26	-0.15	0.15	0.08	0.22
1993	0.06	0.11	0.26	-0.08	0.15	0.08	0.23
1994	0.11	0.11	0.27	0.08	0.19	0.08	0.29
1995	0.12	0.22	0.19	-0.06	0.14	0.03	0.24
1996	0.05	0.02	0.24	0.29	0.21	0.09	0.33
1997	-0.02	0.10	0.15	0.02	0.09	-0.07	0.25
1998	0.07	0.10	0.20	-0.12	0.12	0.01	0.24
1999	0.06	0.28	0.04	0.12	0.09	-0.12	0.30
2000	0.17	0.07	0.28	0.01	0.17	0.03	0.31
2001	0.19	0.13	0.36	0.07	0.24	0.13	0.35
2002	0.12	0.16	0.37	-0.04	0.22	0.13	0.32
2003	0.14	0.20	0.34	0.28	0.29	0.15	0.42
2004	0.08	0.14	0.37	0.43	0.33	0.20	0.45
2005	0.11	0.25	0.33	0.24	0.27	0.11	0.43
2006	0.16	0.19	0.33	0.25	0.28	0.07	0.48

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Table A8.15. Unweighted average of annual instantaneous **natural mortality** for coastal programs, and weighted average of annual instantaneous natural mortality for producer areas, along with 95% confidence intervals, for striped bass ≥ 18 inches, using the catch equation. Negative values of M are not included in the means. When negative or missing values are present, weights do not add to 1.

Producer Area Programs					Weighted average*	lower 95% CI	upper 95% CI
Year	HUDSON	DE/PA	MDCB	VARAP			
1987			0.16		0.11	0.07	0.14
1988	-0.09		0.16		0.11	0.06	0.15
1989	0.87		0.15		0.21	0.15	0.27
1990	-0.59		0.38	-0.13	0.25	0.21	0.30
1991	-0.14		0.33	0.96	0.42	0.32	0.52
1992	0.18		0.29	-0.25	0.22	0.15	0.29
1993	0.12	0.08	0.32	0.12	0.22	0.09	0.35
1994	0.13	0.18	0.31	0.16	0.24	0.09	0.38
1995	0.26	0.31	0.29	0.10	0.24	0.09	0.39
1996	0.13	-0.12	0.32	0.23	0.24	0.09	0.39
1997	0.04	0.16	0.27	0.26	0.23	0.07	0.38
1998	0.08	0.25	0.31	0.60	0.35	0.19	0.50
1999	0.29	0.35	0.33	0.73	0.43	0.30	0.56
2000	-0.08	0.24	0.54	0.57	0.45	0.33	0.57
2001	0.09	0.20	0.57	0.42	0.44	0.29	0.58
2002	0.51	0.30	0.55	0.21	0.44	0.28	0.59
2003	0.17	0.31	0.47	0.03	0.30	0.15	0.46
2004	0.09	0.49	0.52	0.95	0.57	0.43	0.71
2005	0.16	0.41	0.52	0.77	0.53	0.36	0.70
2006	0.21	0.42	0.48	0.46	0.43	0.30	0.57

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs					Unweighted average	lower 95% CI	upper 95% CI
Year	MADFW	NYOHS	NJDEL	NCCOOP			
1987							
1988		0.40		-0.13	0.40	0.37	0.43
1989		-0.14	-0.11	0.35	0.35	0.31	0.39
1990		0.40	-0.17	0.43	0.42	0.37	0.47
1991		0.08	0.35	0.23	0.22	0.14	0.30
1992	0.13	-0.09	0.25	-0.02	0.19	0.15	0.23
1993	0.16	0.56	0.42	0.02	0.29	0.21	0.36
1994	0.18	0.23	0.20	0.52	0.28	0.23	0.34
1995	0.20	-0.07	0.00	-0.15	0.10	0.07	0.13
1996	0.14	0.18	0.04	0.37	0.18	0.10	0.26
1997	0.12	0.33	0.37	0.40	0.31	0.21	0.40
1998	0.13	0.60	0.05	0.18	0.24	0.15	0.33
1999	0.17	0.25	0.19	-0.21	0.20	0.13	0.27
2000	0.17	0.43	0.18	0.99	0.44	0.37	0.52
2001	0.20	0.36	0.02	0.33	0.23	0.15	0.31
2002	0.16	0.16	0.46	0.35	0.28	0.19	0.37
2003	0.19	0.48	0.42	0.37	0.37	0.27	0.46
2004	0.19	0.43	0.15	-0.11	0.26	0.17	0.35
2005	0.20	0.76	0.38	1.13	0.62	0.51	0.72
2006	0.17	0.52	0.39	0.29	0.34	0.26	0.42

Table A8.16. Akaike weights used to derive model averaged parameter estimates. Results are for male striped bass 18 - 28 inches, recaptured in Chesapeake Bay. Models are described in Table A8.1.

Model	Maryland	Virginia
{S(.)r(.)}	0	0
{S(.)r(p)}	0	0
{S(.)r(t)}	0	0
{S(p)r(p)}	0	0
{S(p)r(t)}	0.0019	0
{S(d)r(p)}	0	0
{S(v)r(p)}	0	0
{S(t)r(p)}	0.9971	0
{S(t)r(t)}	0.0010	1.0000

Table A8.17. R/M estimates of exploitation rates of 18 - 28 inch male striped bass recaptured in Chesapeake Bay. Exploitation rate, an input to the catch equation, is the proportion of tagged fish that were harvested or killed (with reporting rate adjustment of 0.64, and hooking mortality rate adjustment of 0.08).

Year	Maryland	Virginia	MEAN
1987	0.01		0.01
1988	0.01		0.01
1989	0.00		0.00
1990	0.04	0.03	0.04
1991	0.05	0.13	0.09
1992	0.09	0.21	0.15
1993	0.07	0.09	0.08
1994	0.07	0.13	0.10
1995	0.12	0.08	0.10
1996	0.10	0.08	0.09
1997	0.11	0.07	0.09
1998	0.13	0.05	0.09
1999	0.09	0.06	0.07
2000	0.08	0.06	0.07
2001	0.08	0.10	0.09
2002	0.08	0.06	0.07
2003	0.10	0.07	0.08
2004	0.07	0.06	0.07
2005	0.07	0.07	0.07
2006	0.09	0.05	0.07

Table A8.18. Unadjusted (unadj.) and bias-corrected (adj.) estimates of survival (S) and fishing mortality (F) for male striped bass 18 - 28 inches, recaptured in Chesapeake Bay, from Program MARK, for Maryland and Virginia. S(adj.) (converted to Z) is an input to the catch equation.

Maryland

C-hat adjustment = 1.0; bootstrap GOF probability = 0.38 for the full parameterized model.

Year	S(unadj.)	F(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)
1987	0.72	0.18	0.07	0.94	-0.09	0.79
1988	0.81	0.06	0.04	0.86	-0.05	0.85
1989	0.87	-0.01	0.03	0.93	-0.04	0.90
1990	0.74	0.15	0.06	0.57	-0.05	0.78
1991	0.71	0.20	0.07	0.41	-0.04	0.74
1992	0.55	0.45	0.10	0.41	-0.07	0.59
1993	0.60	0.35	0.08	0.31	-0.04	0.63
1994	0.57	0.41	0.10	0.40	-0.06	0.61
1995	0.52	0.51	0.11	0.35	-0.07	0.55
1996	0.52	0.50	0.11	0.40	-0.07	0.56
1997	0.49	0.57	0.11	0.32	-0.06	0.52
1998	0.40	0.77	0.13	0.30	-0.06	0.43
1999	0.59	0.37	0.09	0.27	-0.04	0.62
2000	0.32	1.00	0.10	0.41	-0.07	0.34
2001	0.42	0.72	0.08	0.38	-0.04	0.44
2002	0.46	0.63	0.07	0.30	-0.03	0.47
2003	0.40	0.78	0.09	0.22	-0.03	0.41
2004	0.32	0.98	0.09	0.30	-0.04	0.34
2005	0.42	0.71	0.07	0.33	-0.03	0.44
2006	0.42	0.72	0.09	0.27	-0.04	0.43

Virginia

C-hat adjustment = 0.66; bootstrap GOF probability = 0.186 for the full parameterized model.

Year	S(unadj)	F(unadj)	Recovery Rate	% Live Release	Bias Live Release	S(adj)
1990	0.22	1.35	0.11	0.45	-0.08	0.24
1991	0.42	0.73	0.17	0.52	-0.16	0.49
1992	0.62	0.33	0.13	0.17	-0.04	0.64
1993	0.85	0.01	0.07	0.53	-0.06	0.90
1994	0.32	0.98	0.05	0.58	-0.05	0.34
1995	0.38	0.82	0.11	0.59	-0.10	0.42
1996	0.89	-0.04	0.07	0.26	-0.03	0.92
1997	0.41	0.73	0.06	0.42	-0.04	0.43
1998	0.21	1.43	0.04	0.43	-0.03	0.21
1999	0.26	1.21	0.08	0.31	-0.04	0.27
2000	0.26	1.18	0.08	0.38	-0.05	0.28
2001	0.37	0.85	0.09	0.36	-0.06	0.39
2002	0.67	0.25	0.06	0.47	-0.04	0.70
2003	0.56	0.43	0.06	0.34	-0.03	0.58
2004	0.16	1.70	0.05	0.23	-0.02	0.16
2005	0.34	0.94	0.04	0.29	-0.02	0.34
2006	0.05	2.90	0.07	0.38	-0.05	0.05

Table A8.19. Estimates of fishing mortality for 18 - 28 inch male striped bass recaptured in Chesapeake Bay, based on exploitation rate and Baranov's catch equation, using bias-adjusted estimates of survival from Table A8.18. The tables also present annual estimates of instantaneous natural mortality, M. Column headings are S: bias-corrected survival rate, Z: total instantaneous mortality, A: annual percentage mortality expressed as a proportion, U: annual exploitation rate, F: instantaneous fishing mortality rate and M: instantaneous natural mortality rate.

Maryland						Virginia					
<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>	<u>Year</u>	<u>Z</u>	<u>A</u>	<u>U</u>	<u>F</u>	<u>M</u>
1987	0.23	0.21	0.01	0.01	0.22	1987					
1988	0.16	0.15	0.01	0.01	0.15	1988					
1989	0.10	0.10	0.00	0.00	0.10	1989					
1990	0.25	0.22	0.04	0.05	0.20	1990	1.42	0.76	0.03	0.06	1.36
1991	0.31	0.26	0.05	0.06	0.24	1991	0.71	0.51	0.13	0.18	0.52
1992	0.54	0.41	0.09	0.11	0.42	1992	0.44	0.36	0.21	0.26	0.18
1993	0.46	0.37	0.07	0.09	0.37	1993	0.10	0.10	0.09	0.10	0.00
1994	0.50	0.39	0.07	0.09	0.40	1994	1.08	0.66	0.13	0.21	0.87
1995	0.59	0.45	0.12	0.16	0.44	1995	0.86	0.58	0.08	0.12	0.74
1996	0.57	0.44	0.10	0.13	0.44	1996	0.08	0.08	0.08	0.08	0.00
1997	0.66	0.48	0.11	0.15	0.51	1997	0.84	0.57	0.07	0.11	0.73
1998	0.85	0.57	0.13	0.19	0.66	1998	1.55	0.79	0.05	0.10	1.45
1999	0.48	0.38	0.09	0.11	0.37	1999	1.32	0.73	0.06	0.11	1.21
2000	1.08	0.66	0.08	0.13	0.95	2000	1.28	0.72	0.06	0.11	1.17
2001	0.82	0.56	0.08	0.12	0.70	2001	0.94	0.61	0.10	0.15	0.79
2002	0.75	0.53	0.08	0.11	0.64	2002	0.35	0.30	0.06	0.07	0.29
2003	0.89	0.59	0.10	0.14	0.75	2003	0.54	0.42	0.07	0.09	0.45
2004	1.09	0.66	0.07	0.12	0.96	2004	1.83	0.84	0.06	0.13	1.71
2005	0.82	0.56	0.07	0.11	0.72	2005	1.06	0.66	0.07	0.11	0.96
2006	0.83	0.57	0.09	0.14	0.70	2006	3.00	0.95	0.05	0.16	2.84
Average	0.60	0.43	0.07	0.10	0.50	Average	1.02	0.57	0.08	0.13	0.90

Table A8.20. Weighted average of annual instantaneous **fishing mortality** for the Chesapeake Bay specific analysis, along with 95% confidence intervals, for male striped bass 18 - 28 inches, using the catch equation. When missing values are present, weights do not add to 1

Year	Maryland	Virginia	Weighted average*	lower 95% CI	upper 95% CI
1987	0.01		0.00	0.00	0.01
1988	0.01		0.01	0.00	0.01
1989	0.00		0.00	0.00	0.01
1990	0.05	0.06	0.05	0.02	0.09
1991	0.06	0.18	0.10	0.03	0.17
1992	0.11	0.26	0.16	0.03	0.30
1993	0.09	0.10	0.09	0.04	0.14
1994	0.09	0.21	0.13	0.01	0.25
1995	0.16	0.12	0.14	0.07	0.21
1996	0.13	0.08	0.12	0.06	0.18
1997	0.15	0.11	0.14	0.07	0.20
1998	0.19	0.10	0.16	0.08	0.24
1999	0.11	0.11	0.11	0.05	0.17
2000	0.13	0.11	0.12	0.06	0.18
2001	0.12	0.15	0.13	0.07	0.19
2002	0.11	0.07	0.10	0.04	0.15
2003	0.14	0.09	0.13	0.06	0.19
2004	0.12	0.13	0.12	0.06	0.19
2005	0.11	0.11	0.11	0.05	0.16
2006	0.14	0.16	0.14	0.02	0.27

* Weighting Scheme: MD (0.67) and VA (0.33)

Table A9.1. Candidate models used in the analyses of striped bass tag recoveries in the IRCR.

Model Number	Model Name	Description
1	Fy, F'y, M87-06 (Global Model)	F and F' estimated each year, constant M for entire period
2	F87-89, F90-94, F95-99, F00-02, F03-06, F'y, M87-06	Constant F for each regulatory period, F' estimated each year, constant M for entire period
3	F87-06, F'y, M87-06	Constant F over entire period, F' estimated each year, constant M for entire period
4	Fy, F'87-89, F'90-94, F'95-99, F'00-02, F'03-06, M87-06	F estimated each year, constant F' for each regulatory period, constant M for entire period
5	Fy, F'87-06, M87-06	F estimated each year, constant F' for entire period, constant M
6	F87-89, F90-94, F95-99, F00-02, F03-06, F87-89, F'90-94, F'95-99, F'00-02, F'03-06, M87-06	Constant F for each regulatory period, constant F' for each regulatory period, constant M for entire period
7	F87-06, F'87-06, M87-06	Constant F for entire period, constant F' for entire period, constant M for entire period

Table A9.2. Akaike weights used to derive model averaged parameter estimates. Results are for striped bass ≥ 28 inches. Models are described in Table A9.1.

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
1	0	0	0	0.0014
2	0.0002	0.9916	0	0.0123
3	0	0	0	0
4	0.0244	0	0.8043	0.1034
5	0	0	0.0003	0
6	0.9753	0.0049	0.1611	0.8829
7	0	0	0	0

Producer Area Programs

Model	DE/PA	HUDSON	MDCB	VARAP
1	0	0	0.0031	0
2	0.0002	0.1475	0.0019	0.0004
3	0.0002	0	0	0
4	0.0009	0.0001	0	0.1107
5	0.0043	0	0	0
6	0.2548	0.8515	0.9950	0.8888
7	0.7397	0	0	0

Table A9.3. Akaike weights used to derive model averaged parameter estimates. Results are for striped bass ≥ 18 inches. Models are described in Table A9.1.

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
1	0	0	0.0052	0.0008
2	0.0003	0.9995	0.0150	0.0157
3	0	0	0	0
4	0.0163	0	0.0776	0.0518
5	0	0	0	0
6	0.9835	0.0003	0.9022	0.9317
7	0	0	0	0

Producer Area Programs

Model	DE/PA	HUDSON	MDCB	VARAP
1	0	0.0549	1.0000	0.0003
2	0.0003	0.9450	0	0.0002
3	0.0031	0	0	0
4	0.0001	0	0	0.7114
5	0.0002	0	0	0
6	0.0915	0.0001	0	0.2880
7	0.9049	0	0	0

Table A9.4. Summaries of tag-based estimates of annual **survival** of striped bass ≥ 28 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add up to 1.

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.88		0.79	0.84	0.82	0.85
1989		0.87	0.82	0.79	0.83	0.80	0.85
1990		0.82	0.80	0.74	0.79	0.76	0.81
1991		0.77	0.79	0.75	0.77	0.74	0.79
1992	0.82	0.77	0.80	0.74	0.78	0.76	0.81
1993	0.82	0.74	0.81	0.74	0.78	0.75	0.81
1994	0.82	0.80	0.85	0.74	0.80	0.78	0.82
1995	0.74	0.72	0.80	0.69	0.74	0.72	0.76
1996	0.74	0.71	0.73	0.70	0.72	0.70	0.74
1997	0.74	0.66	0.74	0.69	0.71	0.68	0.73
1998	0.74	0.63	0.67	0.69	0.68	0.65	0.71
1999	0.74	0.66	0.73	0.69	0.71	0.67	0.74
2000	0.78	0.74	0.76	0.73	0.75	0.72	0.79
2001	0.79	0.74	0.75	0.73	0.75	0.72	0.78
2002	0.78	0.74	0.76	0.73	0.75	0.72	0.78
2003	0.81	0.71	0.75	0.74	0.75	0.72	0.78
2004	0.81	0.73	0.76	0.74	0.76	0.74	0.78
2005	0.81	0.78	0.76	0.74	0.77	0.74	0.80
2006	0.81	0.81	0.81	0.74	0.79	0.76	0.82

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.87		0.58	0.57	0.60
1988	0.82		0.84		0.67	0.63	0.71
1989	0.82		0.84		0.67	0.64	0.70
1990	0.76		0.77	0.65	0.67	0.63	0.71
1991	0.76		0.67	0.65	0.62	0.57	0.67
1992	0.76		0.72	0.65	0.64	0.60	0.68
1993	0.76	0.67	0.73	0.65	0.71	0.67	0.74
1994	0.76	0.67	0.75	0.64	0.72	0.68	0.75
1995	0.70	0.65	0.66	0.60	0.65	0.61	0.69
1996	0.70	0.65	0.70	0.60	0.67	0.64	0.71
1997	0.70	0.65	0.66	0.60	0.65	0.61	0.69
1998	0.70	0.65	0.63	0.60	0.63	0.59	0.68
1999	0.70	0.65	0.63	0.60	0.63	0.58	0.69
2000	0.76	0.64	0.72	0.67	0.71	0.66	0.76
2001	0.76	0.64	0.72	0.67	0.71	0.66	0.75
2002	0.76	0.64	0.79	0.67	0.74	0.70	0.78
2003	0.76	0.65	0.76	0.67	0.73	0.69	0.77
2004	0.76	0.65	0.79	0.67	0.74	0.71	0.78
2005	0.76	0.65	0.79	0.68	0.75	0.71	0.78
2006	0.76	0.65	0.79	0.68	0.74	0.71	0.78

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Table A9.5. Summaries of tag-based estimates of annual **survival** of striped bass ≥ 18 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add up to 1.

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.81		0.55	0.54	0.55
1988	0.83		0.81		0.65	0.64	0.66
1989	0.82		0.81		0.65	0.64	0.66
1990	0.77		0.76	0.59	0.65	0.63	0.66
1991	0.77		0.72	0.58	0.62	0.61	0.64
1992	0.77		0.67	0.55	0.59	0.57	0.61
1993	0.78	0.66	0.70	0.56	0.67	0.65	0.69
1994	0.78	0.66	0.70	0.54	0.67	0.65	0.69
1995	0.72	0.66	0.65	0.54	0.63	0.61	0.65
1996	0.72	0.66	0.66	0.56	0.64	0.62	0.66
1997	0.71	0.66	0.62	0.55	0.62	0.59	0.64
1998	0.71	0.66	0.60	0.55	0.61	0.58	0.63
1999	0.71	0.66	0.63	0.54	0.62	0.59	0.65
2000	0.77	0.66	0.68	0.58	0.66	0.63	0.69
2001	0.77	0.66	0.70	0.57	0.67	0.65	0.70
2002	0.77	0.66	0.73	0.57	0.69	0.67	0.71
2003	0.78	0.66	0.71	0.56	0.68	0.65	0.70
2004	0.78	0.66	0.74	0.56	0.69	0.67	0.71
2005	0.78	0.66	0.76	0.57	0.70	0.68	0.72
2006	0.78	0.66	0.75	0.57	0.70	0.68	0.72

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.79		0.75	0.77	0.76	0.78
1989		0.78	0.82	0.75	0.78	0.77	0.79
1990		0.76	0.81	0.69	0.75	0.74	0.76
1991		0.74	0.81	0.69	0.75	0.74	0.76
1992	0.82	0.75	0.81	0.69	0.77	0.76	0.78
1993	0.82	0.73	0.81	0.69	0.76	0.75	0.77
1994	0.82	0.76	0.81	0.69	0.77	0.76	0.78
1995	0.76	0.74	0.75	0.65	0.73	0.71	0.74
1996	0.76	0.73	0.74	0.65	0.72	0.71	0.73
1997	0.76	0.73	0.74	0.65	0.72	0.71	0.73
1998	0.76	0.74	0.74	0.65	0.72	0.71	0.73
1999	0.76	0.74	0.74	0.65	0.72	0.71	0.74
2000	0.79	0.76	0.75	0.69	0.75	0.73	0.76
2001	0.79	0.75	0.74	0.69	0.74	0.73	0.76
2002	0.79	0.74	0.75	0.69	0.74	0.73	0.76
2003	0.80	0.74	0.75	0.70	0.75	0.74	0.76
2004	0.80	0.75	0.75	0.70	0.75	0.74	0.76
2005	0.80	0.76	0.75	0.70	0.75	0.74	0.77
2006	0.80	0.76	0.75	0.70	0.76	0.74	0.77

Table A9.6. Summaries of tag-based estimates of annual instantaneous **fishing mortality** of striped bass ≥ 28 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add up to 1.

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.03		0.02	0.00	0.04
1988	0.09		0.03		0.03	0.01	0.05
1989	0.09		0.03		0.03	0.01	0.05
1990	0.16		0.16	0.14	0.14	0.12	0.16
1991	0.16		0.16	0.14	0.14	0.12	0.16
1992	0.16		0.16	0.14	0.14	0.12	0.16
1993	0.16	0.23	0.16	0.15	0.16	0.14	0.19
1994	0.16	0.23	0.16	0.15	0.17	0.14	0.19
1995	0.26	0.27	0.26	0.23	0.25	0.23	0.28
1996	0.26	0.27	0.26	0.22	0.25	0.22	0.28
1997	0.26	0.27	0.26	0.23	0.25	0.23	0.28
1998	0.26	0.27	0.26	0.23	0.25	0.23	0.28
1999	0.26	0.27	0.26	0.24	0.26	0.23	0.28
2000	0.18	0.28	0.14	0.12	0.15	0.13	0.18
2001	0.18	0.28	0.14	0.12	0.15	0.13	0.18
2002	0.18	0.28	0.14	0.12	0.15	0.13	0.18
2003	0.18	0.26	0.10	0.12	0.13	0.11	0.15
2004	0.18	0.26	0.10	0.11	0.13	0.11	0.15
2005	0.18	0.26	0.10	0.11	0.13	0.11	0.14
2006	0.18	0.26	0.10	0.11	0.13	0.11	0.14

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.04		0.05	0.04	0.03	0.05
1989		0.04	0.10	0.05	0.06	0.04	0.08
1990		0.15	0.12	0.11	0.12	0.10	0.15
1991		0.15	0.13	0.11	0.13	0.10	0.15
1992	0.07	0.15	0.12	0.11	0.11	0.09	0.14
1993	0.08	0.15	0.10	0.11	0.11	0.08	0.14
1994	0.08	0.15	0.05	0.11	0.10	0.08	0.11
1995	0.18	0.28	0.12	0.19	0.19	0.17	0.21
1996	0.18	0.28	0.21	0.18	0.21	0.19	0.23
1997	0.18	0.28	0.20	0.19	0.21	0.19	0.23
1998	0.18	0.28	0.30	0.19	0.24	0.21	0.26
1999	0.18	0.28	0.21	0.19	0.21	0.19	0.24
2000	0.13	0.20	0.17	0.13	0.16	0.13	0.18
2001	0.12	0.20	0.19	0.14	0.16	0.14	0.19
2002	0.13	0.20	0.18	0.14	0.16	0.14	0.18
2003	0.10	0.19	0.19	0.13	0.15	0.13	0.17
2004	0.10	0.19	0.18	0.13	0.15	0.13	0.17
2005	0.10	0.19	0.18	0.12	0.15	0.13	0.17
2006	0.10	0.19	0.12	0.12	0.13	0.11	0.15

Table A9.7. Summaries of tag-based estimates of annual instantaneous **fishing mortality** of striped bass ≥ 18 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add up to 1.

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.00		0.00	0.00	0.01
1988	0.05		0.01		0.02	0.01	0.02
1989	0.05		0.00		0.01	0.01	0.01
1990	0.11		0.07	0.06	0.07	0.05	0.08
1991	0.11		0.12	0.07	0.10	0.08	0.12
1992	0.11		0.19	0.11	0.14	0.12	0.17
1993	0.11	0.16	0.15	0.10	0.14	0.11	0.16
1994	0.11	0.16	0.15	0.13	0.14	0.11	0.17
1995	0.20	0.16	0.23	0.15	0.20	0.16	0.23
1996	0.20	0.16	0.21	0.10	0.17	0.14	0.21
1997	0.20	0.16	0.27	0.13	0.22	0.17	0.26
1998	0.20	0.16	0.31	0.13	0.23	0.19	0.28
1999	0.20	0.16	0.26	0.14	0.21	0.16	0.26
2000	0.13	0.17	0.18	0.07	0.14	0.10	0.18
2001	0.13	0.17	0.15	0.09	0.13	0.10	0.17
2002	0.13	0.17	0.11	0.09	0.11	0.08	0.14
2003	0.12	0.16	0.14	0.10	0.13	0.09	0.16
2004	0.12	0.16	0.10	0.11	0.11	0.08	0.14
2005	0.12	0.16	0.08	0.08	0.09	0.07	0.12
2006	0.12	0.16	0.08	0.09	0.10	0.07	0.13

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.01		0.02	0.02	0.01	0.02
1989		0.01	0.02	0.02	0.02	0.01	0.03
1990		0.06	0.04	0.10	0.07	0.06	0.07
1991		0.06	0.04	0.10	0.07	0.06	0.07
1992	0.07	0.06	0.04	0.11	0.07	0.06	0.08
1993	0.07	0.06	0.04	0.11	0.07	0.06	0.08
1994	0.07	0.06	0.04	0.11	0.07	0.06	0.07
1995	0.14	0.08	0.12	0.16	0.13	0.12	0.14
1996	0.14	0.08	0.13	0.16	0.13	0.12	0.14
1997	0.14	0.08	0.13	0.17	0.13	0.12	0.14
1998	0.14	0.08	0.13	0.17	0.13	0.12	0.14
1999	0.14	0.08	0.13	0.16	0.13	0.12	0.14
2000	0.11	0.06	0.13	0.11	0.10	0.09	0.11
2001	0.10	0.06	0.13	0.11	0.10	0.09	0.11
2002	0.10	0.06	0.13	0.11	0.10	0.09	0.11
2003	0.09	0.05	0.13	0.10	0.09	0.08	0.10
2004	0.09	0.05	0.13	0.10	0.09	0.08	0.10
2005	0.09	0.05	0.13	0.09	0.09	0.08	0.10
2006	0.09	0.05	0.12	0.09	0.09	0.08	0.10

Table A9.8. Summaries of tag-based estimates of annual instantaneous **natural mortality** of striped bass ≥ 28 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add to 1.

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.09		0.18	0.14	0.13	0.14
1989		0.09	0.09	0.18	0.12	0.11	0.13
1990		0.09	0.09	0.18	0.12	0.11	0.13
1991		0.09	0.09	0.18	0.12	0.11	0.13
1992	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1993	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1994	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1995	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1996	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1997	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1998	0.11	0.09	0.09	0.18	0.12	0.11	0.13
1999	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2000	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2001	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2002	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2003	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2004	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2005	0.11	0.09	0.09	0.18	0.12	0.11	0.13
2006	0.11	0.09	0.09	0.18	0.12	0.11	0.13

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.14		0.09	0.08	0.11
1988	0.09		0.14		0.11	0.09	0.13
1989	0.09		0.14		0.11	0.09	0.13
1990	0.09		0.14	0.28	0.16	0.13	0.18
1991	0.09		0.14	0.28	0.16	0.13	0.18
1992	0.09		0.14	0.28	0.16	0.13	0.18
1993	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1994	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1995	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1996	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1997	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1998	0.09	0.16	0.14	0.28	0.17	0.15	0.19
1999	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2000	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2001	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2002	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2003	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2004	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2005	0.09	0.16	0.14	0.28	0.17	0.15	0.19
2006	0.09	0.16	0.14	0.28	0.17	0.15	0.19

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Table A9.9. Summaries of tag-based estimates of annual instantaneous **natural mortality** of striped bass ≥ 18 " based on the Instantaneous Rates Model, along with the unweighted average for coastal programs, the weighted average for producer areas, and 95% confidence intervals. When missing values are present, weights do not add to 1.

Producer Area Programs

Year	HUDSON	DE/PA	MDCB	VARAP	Weighted average*	lower 95% CI	upper 95% CI
1987			0.20		0.13	0.12	0.14
1988	0.12		0.20		0.15	0.14	0.16
1989	0.12		0.20		0.15	0.14	0.16
1990	0.12		0.20	0.47	0.24	0.22	0.26
1991	0.12		0.20	0.47	0.24	0.22	0.26
1992	0.12		0.20	0.47	0.24	0.22	0.26
1993	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1994	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1995	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1996	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1997	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1998	0.12	0.25	0.20	0.47	0.26	0.25	0.28
1999	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2000	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2001	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2002	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2003	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2004	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2005	0.12	0.25	0.20	0.47	0.26	0.25	0.28
2006	0.12	0.25	0.20	0.47	0.26	0.25	0.28

* Weighting Scheme: Hudson (0.13); Delaware (0.09); Chesapeake Bay (0.78), where MD (0.67) and VA (0.33).

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted average	lower 95% CI	upper 95% CI
1987							
1988		0.24		0.26	0.25	0.24	0.26
1989		0.24	0.15	0.26	0.22	0.21	0.23
1990		0.24	0.15	0.26	0.22	0.21	0.23
1991		0.24	0.15	0.26	0.22	0.21	0.23
1992	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1993	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1994	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1995	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1996	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1997	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1998	0.12	0.24	0.15	0.26	0.19	0.18	0.20
1999	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2000	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2001	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2002	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2003	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2004	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2005	0.12	0.24	0.15	0.26	0.19	0.18	0.20
2006	0.12	0.24	0.15	0.26	0.19	0.18	0.20

Table A9.10. Coastwide fishing mortality rates, presented as an unweighted average of producer and coastal programs' means developed using the Instantaneous Rates Model, and coastwide stock size estimates (in numbers of fish) for age 7+ and age 3+ fish, obtained via "Kill = F * Stock Size".

Instantaneous Rates Method

Year	Fishing Mortality	Age 7+ Kill includes discards	Total Stock Size Thousands
1988	0.04	101.4	2,799
1989	0.05	95	2,074
1990	0.13	222.3	1,673
1991	0.13	296.4	2,201
1992	0.13	262.7	2,057
1993	0.14	380.6	2,786
1994	0.13	475.9	3,616
1995	0.22	740	3,309
1996	0.23	965.3	4,148
1997	0.23	1371.1	5,899
1998	0.25	1080.5	4,400
1999	0.23	1146.8	4,885
2000	0.16	1471.8	9,439
2001	0.16	1583.2	9,956
2002	0.16	2075.4	13,229
2003	0.14	2163.1	15,458
2004	0.14	2376.2	17,278
2005	0.14	2132.5	15,627
2006	0.13	2139.3	16,559

Instantaneous Rates Method

Year	Fishing Mortality	Age 3+ Kill includes discards	Total Stock Size Thousands
1988	0.02	444.9	27,268
1989	0.01	479.9	35,749
1990	0.07	921.3	13,771
1991	0.08	988.4	11,988
1992	0.10	986.9	9,477
1993	0.10	1437	14,151
1994	0.10	1866.6	18,054
1995	0.16	2999.7	18,510
1996	0.15	3376.2	22,333
1997	0.17	4580.2	26,579
1998	0.18	4118.3	22,583
1999	0.17	3704.4	21,750
2000	0.12	5044.4	41,091
2001	0.12	4344	37,125
2002	0.11	3889.5	36,649
2003	0.11	4836.2	43,798
2004	0.10	5184.8	51,187
2005	0.09	5125.5	55,488
2006	0.09	5763.4	60,771

Table A9.11. Weighted average of annual instantaneous fishing mortality for the Chesapeake Bay specific analysis, along with 95% confidence intervals, for male striped bass 18 - 28 inches, using instantaneous rates model and a constant estimable M assumption.

Year	F Maryland	F Virginia	Weighted F average*	lower 95% CI	upper 95% CI
1987	0.00		0.00	0.00	0.00
1988	0.00	0.01	0.01	0.00	0.01
1989	0.00	0.00	0.00	0.00	0.00
1990	0.05	0.06	0.05	0.04	0.07
1991	0.09	0.06	0.08	0.06	0.10
1992	0.15	0.17	0.16	0.13	0.19
1993	0.13	0.06	0.11	0.09	0.13
1994	0.12	0.05	0.10	0.08	0.12
1995	0.16	0.09	0.13	0.11	0.15
1996	0.13	0.04	0.10	0.08	0.11
1997	0.15	0.07	0.13	0.10	0.15
1998	0.17	0.05	0.13	0.11	0.15
1999	0.10	0.05	0.09	0.07	0.11
2000	0.10	0.04	0.08	0.06	0.09
2001	0.07	0.06	0.06	0.05	0.08
2002	0.07	0.03	0.06	0.05	0.07
2003	0.08	0.03	0.07	0.05	0.08
2004	0.07	0.05	0.06	0.05	0.08
2005	0.05	0.04	0.05	0.03	0.06
2006	0.05	0.06	0.05	0.04	0.07

Table A9.12. Weighted average of annual instantaneous fishing mortality for the Chesapeake Bay specific analysis, along with 95% confidence intervals, for male striped bass 18 - 28 inches, using instantaneous rates model and two periods of estimable M.

Year	F Maryland	F Virginia	Weighted F average*	lower 95% CI	upper 95% CI
1987	0.00		0.00	0.00	0.00
1988	0.00	0.01	0.01	0.00	0.01
1989	0.00	0.00	0.00	0.00	0.00
1990	0.05	0.04	0.05	0.04	0.06
1991	0.08	0.04	0.07	0.06	0.08
1992	0.14	0.10	0.12	0.10	0.14
1993	0.12	0.04	0.09	0.08	0.11
1994	0.10	0.03	0.08	0.07	0.09
1995	0.13	0.06	0.11	0.09	0.13
1996	0.10	0.03	0.08	0.06	0.09
1997	0.14	0.07	0.11	0.09	0.13
1998	0.20	0.06	0.15	0.13	0.18
1999	0.15	0.07	0.13	0.10	0.15
2000	0.15	0.05	0.12	0.09	0.14
2001	0.11	0.09	0.10	0.08	0.13
2002	0.12	0.06	0.10	0.08	0.12
2003	0.16	0.05	0.12	0.09	0.15
2004	0.15	0.08	0.13	0.09	0.16
2005	0.10	0.06	0.09	0.06	0.11
2006	0.12	0.09	0.11	0.08	0.14

Table A9.13. Weighted average of annual instantaneous fishing mortality for the Chesapeake Bay specific analysis, along with 95% confidence intervals, for male striped bass 18 - 28 inches, using instantaneous rates model and three periods of estimable M.

Year	F Maryland	F Virginia	Weighted F average*	lower 95% CI	upper 95% CI
1987	0.00		0.00	0.00	0.00
1988	0.00	0.01	0.01	0.00	0.01
1989	0.00	0.00	0.00	0.00	0.00
1990	0.05	0.04	0.05	0.04	0.06
1991	0.08	0.04	0.07	0.06	0.08
1992	0.14	0.10	0.12	0.10	0.14
1993	0.12	0.04	0.09	0.08	0.11
1994	0.11	0.03	0.08	0.07	0.09
1995	0.13	0.06	0.11	0.09	0.13
1996	0.10	0.03	0.08	0.06	0.09
1997	0.14	0.07	0.11	0.09	0.13
1998	0.20	0.06	0.15	0.13	0.18
1999	0.15	0.08	0.12	0.09	0.15
2000	0.14	0.05	0.11	0.09	0.14
2001	0.11	0.09	0.10	0.08	0.13
2002	0.12	0.06	0.10	0.08	0.13
2003	0.17	0.05	0.13	0.10	0.16
2004	0.17	0.07	0.13	0.10	0.17
2005	0.11	0.06	0.09	0.06	0.12
2006	0.13	0.08	0.12	0.08	0.15

Table A10.1. The fraction of total mortality (p) that occurs prior to the survey and ages to which survey indices are linked.

	p	Linked Ages
Age-specific		
NY YOY	0	1 (January 1 st)
NJ YOY	0	1 (January 1 st)
MD YOY	0	1 (January 1 st)
VA YOY	0	1 (January 1 st)
MD Age 1	0	2 (January 1 st)
NY (WLI) Age 1	0	2 (January 1 st)
Aggregate		
MRFSS	0.5	3-13+
CTCPUE	0.5	2-13+
NEFSC	0.333	2-9
CT Trawl	0.333	2-4
MA COMM	0.5	3-13+
Indices with age compositions		
NY OHS	0.75	2-13+
NJ Trawl	0.25	1-13+
MD SSN	0.25	1-13+
DE SSN	0.25	2-13+

Table A10.2. Estimates of effective sample size from the New Jersey, Delaware, Maryland, and New York fishery-independent surveys.

Survey	Year	No. Hauls With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
NJ	1999	22	298	45.2	181.893	46.5	9.199	20
	2000	28	280	51.8	278.077	51.7	12.715	22
	2001	23	94	51.7	291.755	51.9	10.24	28
Average								23

Survey	Year	No. Runs With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
DE	1999	50	281	611.9	30784.3	610.4	357.375	86
	2000	37	304	565.7	24952.6	546.5	502.028	50
	2001	44	288	617.6	26952.1	616.6	402.063	67
Average								68

Assuming Sets is Sampling Units

Survey	Year	No. of Sets With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
MD	1999	20	2883	478.1	18555.6	474.5	395.414	47
	2000	20	2349	519.5	20641.4	518.4	205.491	100
	2001	20	1868	597.2	32827.2	597	140.701	233
	2002	20	2212	550.9	27542.1	547.5	466.204	59
	2003	21	2115	547.6	29745.5	544.1	827.03	36
	2004	20	2325	540.3	34938.5	534.1	1459.24	24
	2005	20	1650	551.2	35616.4	548.3	1110.37	32
	2006	20	1766	522.5	34920.8	511.5	2001.31	17
Average								68.5

Survey	Year	No. of Sets With Bass	No. Bass Measured	SRS		Cluster Sampling		Effective Sample Size
				Mean Length	s2	Mean Length	Var(Mean)	
NY	1987	56	1949	639.2	8160.28	641.0	133.62	61
	1988	58	2098	604.0	17370.60	604.1	212.23	82
	1989	59	1195	621.4	18716.80	621.1	219.26	85
	1990	58	2042	658.7	13897.90	661.7	425.84	33
	1991	55	1788	552.1	15240.70	547.8	364.91	42
	1992	58	1605	570.5	10023.30	566.9	256.25	39
	1993	59	2201	604.9	17746.40	605.6	288.53	62
	1994	59	1710	613.1	15112.60	608.4	290.56	52
	1995	57	1491	438.3	9199.04	427.2	769.23	12
	1996	54	2198	485.7	6536.21	485.8	113.08	58
	1997	45	1665	492.8	4449.32	492.9	37.65	118
	1998	44	1591	545.0	7387.53	545.9	263.46	28
	1999	45	1398	519.5	5399.00	516.1	140.50	38
	2000	44	1520	597.1	13592.10	598.5	222.20	61
	2001	45	1052	549.5	7082.03	541.1	470.01	15
	2002	44	1220	514.5	13092.00	513.4	131.26	100
	2003	25	833	572.5	11641.00	572.3	246.95	47
2004	44	1524	526.4	8424.27	526.4	71.92	117	
2005	40	1037	535.9	9950.54	540.7	443.79	22	
Average								56.4210526

Table A10.3. Starting values for the various model parameters.

<i>Average recruitment (log)</i>		10.6
<i>Average fishing mortality(log)</i>		-2.6
<i>Catch Selectivity Parameters</i>		
α	3	
β	1	
<i>Survey Selectivity - NJ Trawl, DE SSN, MDSSN</i>		
α	3	
β	1	
	- MD SSN	
s_2	0.3	
<i>-NYOHS</i>		
γ	0.95	
α	-1	
β	1	
<i>Catchability Coefficients (log)</i>		
YOY/Age1 Indices	q	-20.4
Aggregate Indices	q	-19.7
Survey/Age Comp Indices	q	-20.2
Fishing Mortality on Tags	F'	-2.3

Table A10.4. Likelihood components with respective contributions from model run with lambda weight=50.

Likelihood Components

	Weight	RSS
Total Catch	: 50	710.41
YOY/Yearl Surveys		
NY YOY	: 1	1742.86
NJ YOY	: 1	296.742
MD YOY	: 1	607.99
VA YOY	: 1	492.518
NY Age 1	: 1	109.723
MD Age 1	: 1	374.071
Aggregate Surveys		
MRFSS	: 1	50.8155
CT CPUE	: 1	21.3358
NEFSC	: 1	89.9807
CT Trawl	: 1	226.942
Age Survey Indices		
NY OHS	: 1	142.004
NJ Trawl	: 1	59.6951
MD SSN	: 1	290.152
DE SSN	: 1	21.4552
Total RSS		5236.69
No. of Obs		351
Conc. Likelihood		474.317
Catch Age Comps	: 1	20433.1
Survey Age Comps		
NYOHS	: 1	1863.78
NJ Trawl	: 1	764.115
MD SSN	: 1	3274.67
DE SSN	: 1	2131.66
Recr Devs	: 1	33.1619
F Devs	: 1	4.28312
Tag Data		
Hudson River	: 1	11125.9
Delaware River	: 1	2240.51
Maryland	: 1	7486.31
Virginia	: 1	3166.53
New York OHS	: 1	4472.33
Massachusetts	: 1	4563.36
New Jersey	: 1	5772.27
North Carolina	: 1	9356.39
Total Likelihood	:	77162.7

Table A10.5. Parameter estimates and associated standard deviations of final model configuration.

Year	F	SD	CV	Year	R	SD	CV	Year	F'	SD	CV
1982	0.48	0.024	0.05	1970	2.20E+07	8.35E+06	0.38	1988	0.08	0.015	0.19
1983	0.29	0.036	0.13	1971	3.97E+07	1.29E+07	0.33	1989	0.17	0.015	0.09
1984	0.29	0.031	0.11	1972	1.67E+07	5.49E+06	0.33	1990	0.17	0.013	0.08
1985	0.22	0.026	0.12	1973	1.01E+07	3.02E+06	0.30	1991	0.15	0.010	0.07
1986	0.15	0.020	0.13	1974	5.35E+06	1.48E+06	0.28	1992	0.14	0.009	0.06
1987	0.07	0.008	0.10	1975	3.52E+06	8.93E+05	0.25	1993	0.13	0.008	0.06
1988	0.09	0.011	0.12	1976	2.76E+06	5.46E+05	0.20	1994	0.12	0.007	0.06
1989	0.08	0.007	0.09	1977	1.85E+06	3.29E+05	0.18	1995	0.10	0.006	0.06
1990	0.13	0.006	0.05	1978	2.20E+06	2.83E+05	0.13	1996	0.08	0.005	0.07
1991	0.13	0.006	0.05	1979	3.59E+06	3.15E+05	0.09	1997	0.08	0.006	0.07
1992	0.11	0.004	0.04	1980	2.27E+06	1.69E+05	0.07	1998	0.08	0.006	0.08
1993	0.13	0.005	0.04	1981	1.46E+06	9.72E+04	0.07	1999	0.08	0.007	0.09
1994	0.13	0.005	0.03	1982	1.59E+06	9.46E+04	0.06	2000	0.06	0.006	0.10
1995	0.19	0.006	0.03	1983	4.01E+06	1.74E+05	0.04	2001	0.06	0.005	0.09
1996	0.22	0.006	0.03	1984	3.30E+06	1.55E+05	0.05	2002	0.06	0.005	0.08
1997	0.25	0.007	0.03	1985	3.24E+06	1.58E+05	0.05	2003	0.06	0.005	0.07
1998	0.22	0.006	0.03	1986	3.06E+06	1.59E+05	0.05	2004	0.05	0.004	0.07
1999	0.17	0.005	0.03	1987	4.21E+06	2.00E+05	0.05	2005	0.05	0.004	0.08
2000	0.20	0.005	0.03	1988	5.06E+06	2.34E+05	0.05	2006	0.05	0.004	0.07
2001	0.17	0.004	0.02	1989	6.29E+06	2.79E+05	0.04				
2002	0.15	0.004	0.03	1990	9.07E+06	3.68E+05	0.04				
2003	0.17	0.005	0.03	1991	7.81E+06	3.53E+05	0.05				
2004	0.16	0.005	0.03	1992	8.41E+06	3.88E+05	0.05				
2005	0.15	0.005	0.03	1993	1.09E+07	4.67E+05	0.04				
2006	0.15	0.005	0.03	1994	2.22E+07	7.28E+05	0.03				
				1995	1.46E+07	6.00E+05	0.04				
				1996	1.75E+07	6.97E+05	0.04				
				1997	2.13E+07	8.23E+05	0.04				
				1998	1.39E+07	6.82E+05	0.05				
				1999	1.46E+07	7.59E+05	0.05				
				2000	1.24E+07	7.61E+05	0.06				
				2001	2.33E+07	1.26E+06	0.05				
				2002	3.08E+07	1.79E+06	0.06				
				2003	1.69E+07	1.47E+06	0.09				
				2004	5.27E+07	4.11E+06	0.08				
				2005	1.56E+07	2.56E+06	0.16				
				2006	1.37E+07	3.47E+06	0.25				

Catch Selectivity Parameters			
	Estimate	SD	CV
1982-1984			
α	1.77	0.043	0.02
β	2.22	0.138	0.06
1985-1989			
α	3.64	0.141	0.04
β	0.58	0.034	0.06
1990-1995			
α	3.23	0.069	0.02
β	0.74	0.034	0.05
1996-2006			
α	3.74	0.073	0.02
β	0.57	0.020	0.03

Survey Selectivity Parameters			
	Estimate	SD	CV
NYOHS			
γ	0.95	0.024	0.03
α	1.44	0.425	0.36
β	0.33	0.098	0.30
NJ Trawl			
α	1.44	0.425	0.29
β	0.33	0.098	0.30
DE SSN			
α	3.85	0.246	0.06
β	0.53	0.070	0.13
MDSSN			
s_2	0.27	0.022	0.08

Table A10.6. Estimates of average and abundance weighted fishing mortality from SCATAG.

Year	Average F		N Weighted F	
	8-11	3-8	7-11	3-8
1982	0.481	0.475	0.481	0.477
1983	0.286	0.283	0.286	0.278
1984	0.295	0.291	0.295	0.288
1985	0.209	0.141	0.199	0.103
1986	0.148	0.100	0.139	0.059
1987	0.071	0.048	0.067	0.031
1988	0.088	0.060	0.084	0.042
1989	0.076	0.052	0.073	0.041
1990	0.126	0.094	0.122	0.079
1991	0.126	0.094	0.122	0.078
1992	0.104	0.078	0.102	0.063
1993	0.127	0.095	0.125	0.073
1994	0.132	0.099	0.130	0.081
1995	0.189	0.142	0.185	0.120
1996	0.208	0.137	0.198	0.109
1997	0.245	0.162	0.232	0.111
1998	0.208	0.137	0.198	0.103
1999	0.167	0.110	0.160	0.085
2000	0.191	0.126	0.182	0.099
2001	0.165	0.109	0.154	0.094
2002	0.141	0.093	0.134	0.084
2003	0.161	0.106	0.154	0.098
2004	0.157	0.104	0.150	0.088
2005	0.148	0.098	0.143	0.076
2006	0.142	0.094	0.137	0.077

Table A10.7. Estimates of fishing mortality-at-age.

Year	1	2	3	4	5	6	7	8	9	10	11	12	13+
1982	0.002	0.263	0.450	0.477	0.480	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
1983	0.001	0.156	0.268	0.284	0.286	0.286	0.286	0.286	0.286	0.286	0.286	0.286	0.286
1984	0.001	0.161	0.276	0.293	0.294	0.295	0.295	0.295	0.295	0.295	0.295	0.295	0.295
1985	0.002	0.016	0.051	0.097	0.138	0.169	0.189	0.201	0.208	0.212	0.214	0.216	0.216
1986	0.001	0.012	0.036	0.069	0.098	0.120	0.134	0.142	0.147	0.150	0.152	0.153	0.153
1987	0.001	0.006	0.017	0.033	0.047	0.057	0.064	0.068	0.070	0.072	0.073	0.073	0.073
1988	0.001	0.007	0.022	0.041	0.059	0.071	0.080	0.085	0.088	0.090	0.091	0.091	0.091
1989	0.001	0.006	0.019	0.035	0.051	0.062	0.069	0.074	0.076	0.078	0.078	0.079	0.079
1990	0.001	0.011	0.039	0.073	0.098	0.112	0.120	0.124	0.126	0.127	0.127	0.127	0.127
1991	0.001	0.011	0.039	0.072	0.097	0.112	0.120	0.124	0.125	0.126	0.127	0.127	0.127
1992	0.001	0.009	0.032	0.060	0.081	0.093	0.099	0.103	0.104	0.105	0.105	0.105	0.105
1993	0.001	0.011	0.039	0.073	0.099	0.114	0.121	0.125	0.127	0.128	0.129	0.129	0.129
1994	0.001	0.011	0.041	0.076	0.102	0.118	0.126	0.130	0.132	0.133	0.133	0.134	0.134
1995	0.001	0.016	0.059	0.109	0.147	0.169	0.180	0.186	0.189	0.190	0.191	0.191	0.191
1996	0.002	0.015	0.048	0.092	0.134	0.165	0.186	0.199	0.207	0.212	0.214	0.216	0.216
1997	0.002	0.018	0.056	0.109	0.157	0.195	0.219	0.235	0.244	0.249	0.253	0.254	0.254
1998	0.002	0.015	0.048	0.092	0.133	0.165	0.186	0.199	0.207	0.211	0.214	0.215	0.215
1999	0.002	0.012	0.038	0.074	0.107	0.132	0.149	0.160	0.166	0.170	0.172	0.173	0.173
2000	0.002	0.014	0.044	0.084	0.123	0.151	0.171	0.183	0.190	0.194	0.196	0.198	0.198
2001	0.002	0.012	0.038	0.073	0.106	0.131	0.147	0.158	0.164	0.167	0.170	0.171	0.171
2002	0.001	0.010	0.032	0.062	0.090	0.112	0.126	0.135	0.140	0.143	0.145	0.146	0.146
2003	0.002	0.012	0.037	0.071	0.103	0.128	0.144	0.154	0.160	0.164	0.166	0.167	0.167
2004	0.001	0.011	0.036	0.070	0.101	0.125	0.141	0.151	0.157	0.160	0.162	0.163	0.163
2005	0.001	0.011	0.034	0.065	0.095	0.117	0.132	0.142	0.147	0.150	0.152	0.153	0.153
2006	0.001	0.010	0.033	0.063	0.091	0.112	0.127	0.136	0.141	0.144	0.146	0.147	0.147

Table A10.8. Estimates of population abundance (thousands) by age

Year	Age											Total	13+	8+	
	1	2	3	4	5	6	7	8	9	10	11				12
1982	1,585	1,258	1,293	1,121	366	164	131	89	71	72	63	80	51	6,343	426
1983	4,012	1,362	833	710	598	195	87	69	47	38	38	34	70	8,093	296
1984	3,300	3,449	1,003	548	460	387	126	56	45	30	25	25	67	9,521	248
1985	3,236	2,837	2,527	655	352	248	248	81	36	29	20	16	59	10,390	240
1986	3,061	2,779	2,403	2,067	512	264	214	177	57	25	20	14	52	11,643	344
1987	4,212	2,630	2,364	1,994	1,661	399	202	161	132	42	19	15	48	13,880	417
1988	5,056	3,623	2,251	2,000	1,661	1,364	325	163	130	106	34	15	50	16,778	498
1989	6,288	4,348	3,097	1,896	1,652	1,348	1,093	258	129	102	83	27	51	20,373	650
1990	9,064	5,408	3,720	2,616	1,575	1,352	1,091	878	206	103	81	66	62	26,223	1,397
1991	7,804	7,796	4,606	3,079	2,094	1,230	1,040	833	668	157	78	62	97	29,543	1,894
1992	8,406	6,713	6,640	3,813	2,465	1,635	946	794	634	507	119	59	120	32,850	2,233
1993	10,870	7,231	5,727	5,533	3,090	1,957	1,282	738	617	491	393	92	139	38,161	2,470
1994	22,212	9,349	6,157	4,738	4,425	2,410	1,504	978	560	468	372	297	175	53,646	2,850
1995	14,630	19,105	7,958	5,087	3,779	3,438	1,844	1,141	739	422	352	280	356	59,131	3,291
1996	17,438	12,579	16,184	6,459	3,926	2,809	2,500	1,325	815	526	301	251	452	65,563	3,670
1997	21,327	14,979	10,665	13,280	5,070	2,956	2,050	1,786	935	571	367	209	487	74,683	4,354
1998	13,908	18,314	12,667	8,677	10,254	3,728	2,094	1,417	1,216	630	383	245	465	73,998	4,355
1999	14,629	11,948	15,529	10,395	6,812	7,723	2,721	1,497	1,000	851	439	266	493	74,302	4,546
2000	12,435	12,571	10,160	12,863	8,309	5,267	5,823	2,017	1,098	729	618	318	549	72,758	5,330
2001	23,297	10,683	10,672	8,370	10,174	6,326	3,896	4,225	1,446	782	517	437	612	81,439	8,019
2002	30,863	20,021	9,086	8,845	6,697	7,878	4,778	2,894	3,106	1,057	569	375	761	96,930	8,762
2003	16,882	26,529	17,058	7,572	7,152	5,266	6,063	3,625	2,177	2,324	788	424	845	96,704	10,183
2004	52,737	14,508	22,570	14,148	6,068	5,550	3,988	4,518	2,674	1,596	1,697	574	924	131,553	11,983
2005	15,552	45,324	12,346	18,736	11,358	4,721	4,216	2,982	3,345	1,968	1,170	1,242	1,096	124,056	11,803
2006	13,783	13,367	38,597	10,272	15,105	8,890	3,613	3,179	2,228	2,485	1,457	865	1,726	115,567	11,941

Table A10.9. Estimates of female spawning stock biomass (metric tons)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13+	Total
1982	0	0	0	25	45	125	241	214	176	268	315	399	321	2,130
1983	0	0	0	16	69	114	135	153	128	124	161	165	357	1,421
1984	0	0	0	12	53	228	211	113	125	96	94	125	381	1,437
1985	0	0	0	21	40	192	420	186	104	95	76	69	379	1,582
1986	0	0	0	62	146	337	387	387	145	76	71	58	308	1,653
1987	0	0	0	62	250	226	284	310	329	118	61	61	298	1,998
1988	0	0	0	63	262	918	486	297	304	278	119	63	315	3,104
1989	0	0	0	56	250	1,077	2,132	597	323	325	278	115	323	5,476
1990	0	0	0	78	220	978	2,149	2,190	576	289	307	280	366	7,434
1991	0	0	0	91	297	709	1,864	1,932	1,943	438	274	227	648	8,425
1992	0	0	0	114	373	1,073	1,561	1,852	1,865	1,729	436	301	791	10,094
1993	0	0	0	168	437	1,311	2,247	1,779	1,846	1,720	1,623	442	948	12,523
1994	0	0	0	152	644	1,585	2,639	2,350	1,692	1,594	1,539	1,406	1,043	14,644
1995	0	0	0	183	569	2,330	3,321	2,758	2,312	1,528	1,239	1,270	2,760	18,270
1996	0	0	0	215	635	2,089	5,008	3,586	2,630	2,002	1,269	1,018	2,878	21,329
1997	0	0	0	474	787	2,124	3,827	4,433	2,996	2,236	1,624	944	3,335	22,780
1998	0	0	0	226	1,469	2,256	3,590	3,133	3,325	2,015	1,500	1,129	2,563	21,207
1999	0	0	0	258	732	3,870	3,567	3,194	2,845	2,907	1,602	1,080	2,754	22,810
2000	0	0	0	307	851	2,559	7,559	3,656	3,060	2,360	2,511	1,429	3,464	27,757
2001	0	0	0	219	1,112	3,368	5,501	8,204	3,844	2,717	1,926	1,830	3,108	31,828
2002	0	0	0	217	800	4,406	7,358	6,056	8,002	3,430	2,241	1,613	4,105	38,227
2003	0	0	0	174	796	2,934	9,105	7,438	5,881	7,152	2,950	1,829	4,342	42,602
2004	0	0	0	316	684	3,064	6,049	9,145	7,023	4,914	6,086	2,351	4,623	44,256
2005	0	0	0	396	1,188	2,714	6,164	6,222	9,079	6,191	4,323	5,183	5,544	47,003
2006	0	0	0	212	1,542	4,471	5,299	6,128	6,042	7,851	5,298	3,588	8,966	49,398

A15.0 FIGURES

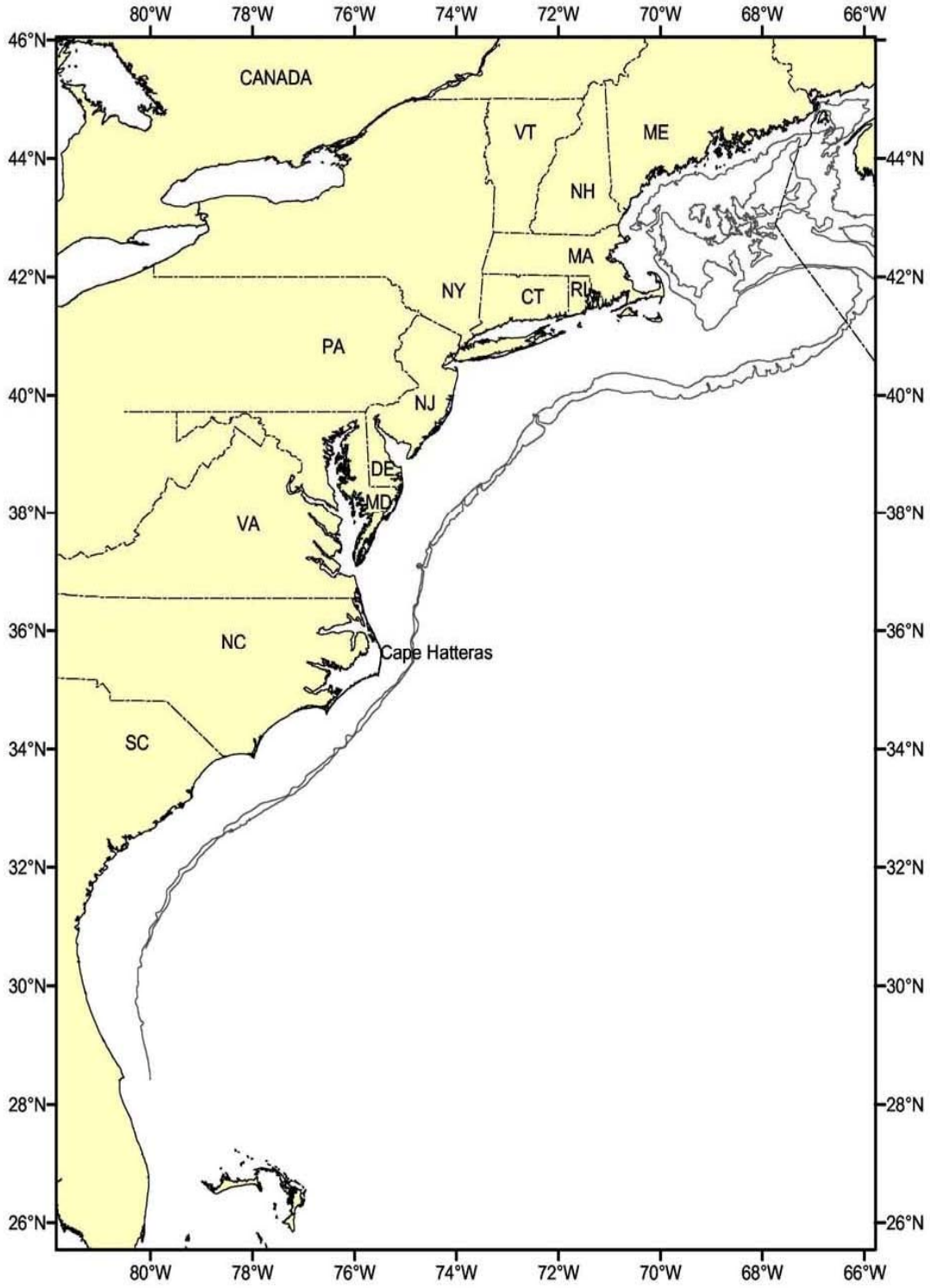


Figure A4.1 Map of the east coast of the United States.