Tagging Segment Tables

Table D20. Time series of instantaneous fishing mortality estimates (F) adjusted for live release bias. Results are for Striped bass >= 18 inches. Reporting Rate (DE) = 0.433.

Coast Programs*

Year	MADFW	NYOHS	NJDEL	NCCOOP
1988		0.28		-0.08
1989		-0.26	-0.23	0.34
1990		0.28	-0.17	0.35
1991		0.00	0.25	0.20
1992	-0.02	-0.18	0.19	-0.08
1993	0.00	0.50	0.30	0.01
1994	-0.01	0.12	0.20	0.39
1995	0.07	-0.16	-0.13	-0.16
1996	0.03	0.13	-0.03	0.46
1997	0.08	0.19	0.35	0.46
1998	0.05	0.54	0.02	0.45
1999	0.07	0.20	0.15	-0.06
2000	0.04	0.39	0.14	0.80
2001	-0.02	0.57	0.14	0.50

Producer Area Programs

Year	DE/PA	MDCB	VARAP	Weighted** Average
1987		0.09		
1988		0.06		
1989		-0.08		
1990		0.22	-0.09	
1991		0.21	1.01	
1992		0.18	-0.08	
1993	0.16	0.23	0.26	0.22
1994	0.11	0.21	0.29	0.20
1995	0.12	0.21	0.17	0.20
1996	0.18	0.25	0.32	0.25
1997	0.22	0.32	0.41	0.31
1998	0.24	0.38	0.70	0.37
1999	0.3	0.45	0.89	0.43
2000	0.33	0.47	0.75	0.46
2001	0.33	0.55	1.20	0.53

* A coastal unweighted average of F for striped bass >= 18 inches was not provided because MADFW primarily represents fish larger than 28 inches and GOF bootstrap indicated a lack of fit for the full parameterized models of NYOHS and NCCOOP.

**- Weighting Scheme: Delaware (0.10); Maryland (0.90)
VARAP was excluded from the producer area weighted average because a GOF bootstrap analysis indicated a lack of fit for the full parameterized model.

Table D21. Time series of instantaneous fishing mortality estimates (F) adjusted for live release bias. Results are for Striped bass >= 28 inches. Reporting Rate (DE) = 0.43.

Coast Programs

Year	MADFW	NYOHS	NJDEL	NCCOOP	Unweighted* Average	
1988		-0.20		-0.02	-0.20	**
1989		-0.16	-0.10	0.10	-0.13	**
1990		0.16	-0.25	0.08	-0.05	**
1991		0.15	-0.09	0.03	0.03	
1992	-0.02	0.10	0.20	0.03	0.09	
1993	-0.01	0.17	0.18	0.03	0.11	
1994	-0.01	0.17	0.10	0.07	0.09	
1995	0.10	0.11	0.07	0.12	0.09	
1996	0.09	0.15	0.10	0.27	0.11	
1997	0.11	0.17	0.19	0.24	0.16	
1998	0.08	0.22	0.16	0.22	0.15	
1999	0.10	0.20	0.12	0.24	0.14	
2000	0.08	0.08	0.22	0.22	0.13	
2001	-0.02	0.10	0.18	0.22	0.09	

Producer Area Programs

Year	DE/PA	MDCB	VARAP	Weighted*** Average
1988		-0.13		
1989		-0.16		
1990		0.23	0.19	
1991		0.10	0.18	
1992		0.11	0.13	
1993	-0.10	0.13	0.22	
1994	-0.07	0.11	0.25	
1995	0.26	0.21	0.29	0.21
1996	0.26	0.22	0.35	0.22
1997	0.30	0.23	0.33	0.23
1998	0.34	0.25	0.27	0.26
1999	0.40	0.24	0.31	0.26
2000	0.37	0.12	0.24	0.15
2001	0.43	0.13	0.24	0.16

* NCCOOP was excluded from the coastal weighted average because a GOF bootstrap analysis indicated a lack of fit for the full parameterized model.

** - Total mortality estimates (Z) at or below Natural mortality estimate of 0.15.

*** - Weighting Scheme: Delaware (0.10); Maryland (0.90)
* VARAP was excluded from the producer area weighted average because a GOF bootstrap analysis indicated a lack of fit for the full parameterized model.

Table D22. Survival (S) and fishing mortality (F) rates of striped bass >= 18 inches including estimates adjusted (adj.) for reporting rate (0.433), bias from live releases, and hooking mortality (0.08).

Coast Programs

Massachusetts
C-hat adjustment = 1.727; bootstrap GOF probability = 0.44 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	0.798	0.076	0.052	0.750	-0.094	0.880	-0.023	-0.119	0.084
1993	0.799	0.074	0.050	0.583	-0.071	0.860	0.000	-0.086	0.095
1994	0.798	0.076	0.058	0.558	-0.080	0.867	-0.008	-0.102	0.096
1995	0.751	0.136	0.052	0.527	-0.068	0.805	0.066	-0.006	0.144
1996	0.755	0.131	0.090	0.420	-0.100	0.839	0.026	-0.043	0.100
1997	0.762	0.122	0.061	0.278	-0.044	0.797	0.077	0.010	0.148
1998	0.766	0.117	0.074	0.323	-0.063	0.817	0.052	-0.014	0.122
1999	0.770	0.111	0.051	0.310	-0.040	0.802	0.070	0.005	0.141
2000	0.806	0.066	0.046	0.241	-0.028	0.829	0.037	-0.029	0.108
2001	0.846	0.017	0.038	0.358	-0.034	0.875	-0.017	-0.084	0.055

New York - Ocean Haul Seine
bootstrap GOF probability < 0.002 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	0.550	0.448	0.075	0.930	-0.150	0.650	0.280	0.117	0.504
1989	0.904	-0.049	0.093	0.940	-0.190	1.121	-0.260	-0.287	-0.234
1990	0.564	0.423	0.072	0.830	-0.130	0.650	0.280	0.104	0.509
1991	0.755	0.131	0.077	0.710	-0.130	0.863	0.000	-0.164	0.321
1992	0.919	-0.066	0.070	0.690	-0.110	1.033	-0.180	-0.263	0.831
1993	0.484	0.576	0.056	0.610	-0.080	0.524	0.500	0.283	0.761
1994	0.683	0.231	0.065	0.720	-0.110	0.763	0.120	-0.026	0.334
1995	0.935	-0.083	0.062	0.550	-0.080	1.015	-0.160	-0.182	-0.141
1996	0.695	0.214	0.059	0.580	-0.080	0.755	0.130	-0.036	0.403
1997	0.652	0.278	0.061	0.600	-0.080	0.711	0.190	-0.017	0.534
1998	0.467	0.611	0.053	0.570	-0.070	0.502	0.540	0.274	0.885
1999	0.655	0.273	0.061	0.510	-0.070	0.706	0.200	-0.052	0.679
2000	0.546	0.455	0.049	0.570	-0.060	0.583	0.390	0.061	0.939
2001	0.454	0.640	0.056	0.510	-0.070	0.485	0.570	0.382	0.799

New Jersey - Delaware Bay
bootstrap GOF probability = 0.35 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	0.885	-0.028	0.106	0.743	-0.180	1.081	-0.230	-0.341	0.727
1990	0.797	0.077	0.120	0.794	-0.220	1.020	-0.170	-0.356	0.548
1991	0.573	0.407	0.088	0.722	-0.140	0.670	0.250	0.023	0.579
1992	0.622	0.325	0.078	0.711	-0.130	0.711	0.190	0.043	0.386
1993	0.558	0.433	0.081	0.652	-0.120	0.635	0.300	0.184	0.446
1994	0.626	0.318	0.083	0.579	-0.110	0.705	0.200	0.101	0.315
1995	0.847	0.016	0.096	0.582	-0.130	0.977	-0.130	-0.212	0.035
1996	0.759	0.126	0.113	0.527	-0.150	0.890	-0.030	-0.176	0.228
1997	0.530	0.485	0.089	0.616	-0.130	0.607	0.350	0.146	0.612
1998	0.715	0.185	0.124	0.488	-0.150	0.844	0.020	-0.118	0.229
1999	0.655	0.273	0.083	0.577	-0.110	0.738	0.150	0.024	0.328
2000	0.660	0.266	0.085	0.579	-0.120	0.746	0.140	-0.007	0.356
2001	0.648	0.284	0.093	0.617	-0.130	0.748	0.140	0.014	0.303

North Carolina - Cooperative Trawl Cruise
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	0.909	-0.054	0.015	0.750	-0.027	0.933	-0.081	-0.105	-0.057
1989	0.604	0.354	0.010	0.720	-0.017	0.615	0.337	0.166	0.542
1990	0.556	0.437	0.057	0.583	-0.082	0.606	0.352	0.193	0.541
1991	0.615	0.336	0.077	0.693	-0.131	0.708	0.196	0.030	0.395
1992	0.814	0.056	0.090	0.531	-0.123	0.928	-0.075	-0.307	0.227
1993	0.757	0.129	0.072	0.647	-0.115	0.855	0.007	-0.211	0.286
1994	0.522	0.499	0.068	0.628	-0.105	0.584	0.389	0.220	0.592
1995	0.906	-0.052	0.080	0.523	-0.107	1.014	-0.164	-0.194	-0.134
1996	0.530	0.486	0.042	0.270	-0.028	0.545	0.457	0.240	0.735
1997	0.523	0.499	0.069	0.228	-0.042	0.546	0.456	0.180	0.838
1998	0.522	0.500	0.073	0.250	-0.048	0.548	0.451	0.167	0.849
1999	0.893	-0.037	0.065	0.150	-0.026	0.917	-0.063	-0.063	-0.063
2000	0.362	0.865	0.047	0.556	-0.064	0.387	0.798	0.540	1.149
2001	0.501	0.541	0.050	0.298	-0.038	0.521	0.503	0.271	0.805

Producer Area Programs

Delaware / Pennsylvania - Delaware River

C-hat adjustment = 1.057; bootstrap GOF probability = 0.44 for the full parameterized model.

With trend models included:

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	0.660	0.270	0.100	0.390	-0.098	0.730	0.160	0.010	0.350
1994	0.660	0.270	0.110	0.550	-0.148	0.770	0.110	-0.060	0.300
1995	0.650	0.280	0.120	0.500	-0.151	0.770	0.120	-0.020	0.270
1996	0.630	0.310	0.110	0.440	-0.122	0.720	0.180	0.080	0.300
1997	0.620	0.330	0.080	0.420	-0.099	0.690	0.220	0.120	0.350
1998	0.590	0.380	0.110	0.470	-0.129	0.680	0.240	0.130	0.370
1999	0.570	0.410	0.090	0.470	-0.103	0.635	0.300	0.170	0.460
2000	0.550	0.450	0.100	0.460	-0.114	0.620	0.330	0.140	0.560
2001	0.540	0.470	0.095	0.560	-0.128	0.620	0.330	0.080	0.660

With trend models excluded:

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	0.670	0.250	0.100	0.390	-0.098	0.740	0.150	-0.020	0.350
1994	0.657	0.270	0.110	0.550	-0.148	0.770	0.110	-0.050	0.300
1995	0.610	0.340	0.120	0.500	-0.151	0.720	0.180	0.100	0.270
1996	0.600	0.360	0.110	0.440	-0.122	0.680	0.230	0.130	0.340
1997	0.620	0.330	0.080	0.420	-0.099	0.690	0.220	0.120	0.350
1998	0.590	0.380	0.110	0.470	-0.129	0.680	0.290	0.130	0.370
1999	0.610	0.340	0.090	0.470	-0.103	0.680	0.240	0.150	0.330
2000	0.610	0.340	0.100	0.460	-0.114	0.690	0.220	0.140	0.320
2001	0.615	0.340	0.095	0.560	-0.128	0.700	0.200	0.120	0.290

Maryland - Chesapeake Bay Spring Spawning Stock

C-hat adjustment = 1.335; bootstrap GOF probability = 0.76 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	0.809	0.062	0.070	0.950	-0.145	0.946	-0.095	-0.188	0.060
1988	0.842	0.023	0.042	0.840	-0.077	0.911	-0.057	-0.104	0.006
1989	0.872	-0.014	0.034	0.930	-0.068	0.936	-0.084	-0.152	0.042
1990	0.638	0.299	0.055	0.580	-0.073	0.689	0.223	0.159	0.294
1991	0.635	0.303	0.082	0.450	-0.089	0.698	0.210	0.166	0.257
1992	0.630	0.312	0.111	0.430	-0.120	0.717	0.183	0.150	0.218
1993	0.626	0.319	0.089	0.380	-0.084	0.683	0.231	0.186	0.280
1994	0.622	0.325	0.100	0.430	-0.106	0.696	0.212	0.144	0.289
1995	0.626	0.318	0.117	0.320	-0.100	0.696	0.213	0.117	0.328
1996	0.601	0.359	0.110	0.350	-0.100	0.668	0.254	0.189	0.325
1997	0.575	0.403	0.114	0.270	-0.082	0.627	0.317	0.267	0.371
1998	0.544	0.458	0.111	0.250	-0.074	0.588	0.381	0.299	0.472
1999	0.519	0.506	0.109	0.200	-0.059	0.551	0.446	0.313	0.600
2000	0.490	0.563	0.095	0.360	-0.086	0.537	0.473	0.281	0.707
2001	0.463	0.620	0.082	0.330	-0.066	0.496	0.551	0.298	0.876

Virginia - Rappahannock River
C-hat adjustment = 1.377; bootstrap GOF probability = 0.18 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	0.810	0.060	0.111	0.481	-0.143	0.945	-0.094	-0.282	0.138
1991	0.287	1.098	0.063	0.524	-0.082	0.313	1.012	0.711	1.443
1992	0.801	0.072	0.125	0.408	-0.143	0.934	-0.082	-0.408	0.404
1993	0.594	0.370	0.089	0.456	-0.106	0.665	0.258	-0.090	0.798
1994	0.587	0.383	0.087	0.402	-0.092	0.647	0.286	-0.062	0.823
1995	0.688	0.223	0.076	0.255	-0.052	0.726	0.170	-0.160	0.667
1996	0.601	0.359	0.055	0.278	-0.039	0.626	0.319	-0.035	0.872
1997	0.537	0.471	0.068	0.330	-0.058	0.571	0.411	0.099	0.867
1998	0.400	0.766	0.066	0.371	-0.063	0.427	0.701	0.390	1.155
1999	0.329	0.961	0.081	0.294	-0.064	0.352	0.895	0.555	1.414
2000	0.376	0.827	0.069	0.436	-0.077	0.408	0.747	0.401	1.280
2001	0.240	1.278	0.075	0.368	-0.072	0.259	1.203	0.879	1.684

Table D23. Survival (S) and fishing mortality (F) rates of striped bass >= 28 inches including estimates adjusted (adj.) for reporting rate (0.433), bias from live releases, and hooking mortality (0.08).

Coast Programs

Massachusetts
C-hat adjustment = 1.494; bootstrap GOF probability = 0.32 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	0.804	0.068	0.048	0.750	-0.087	0.880	-0.023	-0.118	0.083
1993	0.806	0.066	0.054	0.571	-0.076	0.872	-0.013	-0.104	0.086
1994	0.807	0.064	0.059	0.486	-0.072	0.869	-0.010	-0.103	0.093
1995	0.736	0.157	0.056	0.405	-0.057	0.781	0.098	0.026	0.175
1996	0.739	0.152	0.089	0.255	-0.062	0.788	0.088	0.018	0.164
1997	0.742	0.148	0.076	0.205	-0.042	0.775	0.105	0.036	0.179
1998	0.744	0.146	0.086	0.274	-0.064	0.795	0.079	0.010	0.154
1999	0.746	0.143	0.066	0.271	-0.047	0.783	0.095	0.026	0.169
2000	0.766	0.117	0.059	0.222	-0.034	0.793	0.082	0.011	0.158
2001	0.850	0.013	0.046	0.316	-0.036	0.882	-0.025	-0.101	0.059

New York - Ocean Haul Seine
bootstrap GOF probability = 0.29 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	0.806	0.066	0.116	0.890	-0.230	1.050	-0.200	-0.310	0.006
1989	0.806	0.066	0.104	0.870	-0.200	1.011	-0.160	-0.272	0.044
1990	0.635	0.304	0.088	0.660	-0.130	0.734	0.160	0.092	0.235
1991	0.634	0.306	0.109	0.540	-0.140	0.742	0.150	0.087	0.217
1992	0.633	0.307	0.142	0.510	-0.190	0.780	0.100	0.039	0.163
1993	0.632	0.309	0.111	0.450	-0.130	0.724	0.170	0.111	0.242
1994	0.632	0.309	0.108	0.480	-0.130	0.725	0.170	0.104	0.249
1995	0.665	0.258	0.144	0.340	-0.140	0.769	0.110	0.028	0.214
1996	0.663	0.261	0.135	0.290	-0.110	0.743	0.150	0.069	0.240
1997	0.660	0.266	0.141	0.220	-0.090	0.725	0.170	0.095	0.261
1998	0.657	0.270	0.095	0.190	-0.050	0.690	0.220	0.139	0.319
1999	0.654	0.275	0.154	0.140	-0.070	0.701	0.200	0.113	0.317
2000	0.731	0.163	0.134	0.210	-0.080	0.795	0.080	-0.089	0.391
2001	0.740	0.151	0.092	0.210	-0.050	0.779	0.100	-0.064	0.410

New Jersey - Delaware Bay
bootstrap GOF probability = 0.48 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	0.819	0.050	0.104	0.565	-0.140	0.953	-0.100	-0.257	0.416
1990	0.817	0.052	0.135	0.833	-0.260	1.101	-0.250	-0.401	0.269
1991	0.578	0.398	0.249	0.500	-0.380	0.939	-0.090	-0.370	0.381
1992	0.616	0.335	0.080	0.710	-0.130	0.707	0.200	0.007	0.470
1993	0.646	0.287	0.100	0.417	-0.100	0.720	0.180	0.066	0.320
1994	0.686	0.227	0.103	0.466	-0.120	0.778	0.100	0.032	0.182
1995	0.715	0.185	0.102	0.448	-0.110	0.806	0.070	-0.038	0.204
1996	0.688	0.224	0.118	0.397	-0.120	0.782	0.100	0.004	0.210
1997	0.672	0.247	0.082	0.261	-0.050	0.709	0.190	0.123	0.276
1998	0.665	0.258	0.157	0.200	-0.090	0.734	0.160	0.085	0.244
1999	0.664	0.259	0.119	0.421	-0.130	0.761	0.120	0.015	0.261
2000	0.654	0.275	0.080	0.279	-0.050	0.692	0.220	0.061	0.441
2001	0.647	0.285	0.105	0.359	-0.100	0.716	0.180	-0.008	0.481

North Carolina - Cooperative Trawl Cruise
C-hat adjustment = 1.545; bootstrap GOF probability = 0.092 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	0.709	0.194	0.105	0.750	-0.194	0.880	-0.022	-0.188	0.177
1989	0.701	0.205	0.059	0.720	-0.102	0.781	0.097	-0.062	0.286
1990	0.703	0.202	0.075	0.583	-0.110	0.791	0.085	0.008	0.168
1991	0.704	0.201	0.089	0.693	-0.153	0.831	0.035	-0.034	0.109
1992	0.714	0.187	0.106	0.531	-0.147	0.837	0.028	-0.044	0.105
1993	0.709	0.195	0.092	0.647	-0.150	0.834	0.032	-0.036	0.104
1994	0.703	0.203	0.077	0.628	-0.121	0.800	0.074	-0.008	0.162
1995	0.651	0.278	0.104	0.523	-0.143	0.760	0.125	0.019	0.243
1996	0.637	0.301	0.050	0.270	-0.035	0.660	0.265	0.180	0.358
1997	0.634	0.305	0.098	0.228	-0.063	0.677	0.240	0.149	0.341
1998	0.637	0.301	0.113	0.250	-0.082	0.694	0.216	0.118	0.324
1999	0.643	0.291	0.103	0.150	-0.045	0.674	0.245	0.118	0.390
2000	0.639	0.297	0.053	0.556	-0.072	0.689	0.223	0.078	0.392
2001	0.640	0.296	0.091	0.298	-0.074	0.692	0.218	0.069	0.394

Producer Area Programs

Delaware / Pennsylvania - Delaware River

C-hat adjustment = 1.25; bootstrap GOF probability = 0.36 for the full parameterized model.

With trend models included:

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	0.870	-0.010	0.105	0.330	-0.090	0.960	-0.110	-0.270	0.090
1994	0.870	-0.010	0.085	0.290	-0.061	0.930	-0.070	-0.240	0.120
1995	0.590	0.380	0.120	0.350	-0.111	0.660	0.260	0.130	0.410
1996	0.580	0.390	0.152	0.280	-0.124	0.660	0.260	0.160	0.380
1997	0.570	0.410	0.080	0.520	-0.099	0.630	0.310	0.210	0.420
1998	0.560	0.430	0.150	0.170	-0.079	0.610	0.350	0.230	0.480
1999	0.550	0.450	0.093	0.210	-0.051	0.580	0.400	0.250	0.570
2000	0.545	0.460	0.160	0.170	-0.083	0.590	0.370	0.170	0.620
2001	0.540	0.470	0.120	0.120	-0.041	0.560	0.420	0.180	0.750

With trend models excluded:

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	0.860	0.000	0.105	0.330	-0.090	0.945	-0.090	-0.310	0.180
1994	0.860	0.000	0.085	0.290	-0.061	0.920	-0.060	-0.270	0.210
1995	0.575	0.400	0.120	0.350	-0.111	0.650	0.290	0.190	0.400
1996	0.575	0.400	0.152	0.280	-0.124	0.660	0.270	0.170	0.380
1997	0.575	0.400	0.080	0.520	-0.099	0.640	0.300	0.200	0.410
1998	0.570	0.410	0.150	0.170	-0.079	0.620	0.330	0.230	0.440
1999	0.570	0.410	0.093	0.210	-0.051	0.600	0.360	0.260	0.470
2000	0.580	0.390	0.160	0.170	-0.083	0.630	0.310	0.190	0.440
2001	0.580	0.390	0.120	0.120	-0.041	0.600	0.350	0.210	0.520

Maryland - Chesapeake Bay Spring Spawning Stock

C-hat adjustment = 1.281; bootstrap GOF probability = 0.98 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	0.925	-0.072	0.034	0.000	0.000	0.925	-0.072	-0.136	0.225
1988	0.922	-0.069	0.041	0.670	-0.062	0.983	-0.133	-0.196	0.124
1989	0.919	-0.065	0.052	0.790	-0.091	1.011	-0.161	-0.224	0.068
1990	0.624	0.322	0.070	0.570	-0.092	0.687	0.226	0.062	0.451
1991	0.641	0.295	0.123	0.590	-0.178	0.779	0.100	-0.004	0.226
1992	0.658	0.268	0.113	0.510	-0.143	0.768	0.114	0.059	0.175
1993	0.675	0.244	0.099	0.460	-0.112	0.760	0.125	0.058	0.203
1994	0.689	0.222	0.093	0.460	-0.105	0.770	0.111	0.007	0.247
1995	0.644	0.289	0.115	0.260	-0.080	0.701	0.206	0.129	0.294
1996	0.643	0.292	0.097	0.280	-0.070	0.691	0.220	0.157	0.290
1997	0.640	0.296	0.112	0.220	-0.067	0.686	0.227	0.171	0.290
1998	0.637	0.300	0.099	0.190	-0.050	0.671	0.250	0.183	0.324
1999	0.635	0.304	0.120	0.180	-0.060	0.676	0.242	0.160	0.337
2000	0.731	0.163	0.083	0.190	-0.040	0.762	0.122	-0.042	0.419
2001	0.729	0.166	0.066	0.250	-0.040	0.760	0.125	-0.048	0.450

Virginia - Rappahannock River
C-hat adjustment = 1.860; bootstrap GOF probability = 0.12 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	0.622	0.325	0.086	0.577	-0.127	0.712	0.189	0.094	0.294
1991	0.622	0.325	0.091	0.560	-0.131	0.716	0.184	0.090	0.287
1992	0.622	0.325	0.123	0.535	-0.176	0.755	0.131	0.038	0.233
1993	0.624	0.321	0.099	0.349	-0.094	0.689	0.222	0.126	0.329
1994	0.624	0.321	0.084	0.318	-0.072	0.672	0.247	0.148	0.356
1995	0.597	0.367	0.123	0.189	-0.070	0.642	0.294	0.179	0.423
1996	0.597	0.366	0.046	0.130	-0.015	0.606	0.351	0.237	0.479
1997	0.597	0.366	0.080	0.167	-0.037	0.620	0.329	0.216	0.456
1998	0.597	0.366	0.137	0.217	-0.093	0.658	0.269	0.155	0.397
1999	0.597	0.366	0.102	0.200	-0.059	0.634	0.305	0.190	0.436
2000	0.628	0.315	0.079	0.349	-0.073	0.677	0.239	0.081	0.428
2001	0.636	0.303	0.071	0.304	-0.056	0.674	0.245	0.075	0.448

Table D24. QAICc weights used to derive model averaged parameter estimates given by Program MARK. Results are for Striped bass >= 18 inches.

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
{S(t)r(t)}	0.0002	**0.9808**	**0.9340**	**0.9999**
{S(Tp)r(t)}	0.0089	0.0004	0.0649	0.0000
{S(p)r(t)}	0.0630	0.0000	0.0000	0.0000
{S(t)r(p)}	0.0385	0.0000	0.0000	0.0000
{S(.)r(t)}	**0.1331**	0.0000	0.0000	0.0000
{S(Tp)r(Tp)}	0.0663	0.0188	0.0011	0.0000
{S(Tp)r(p)}	0.0070	0.0000	0.0000	0.0000
{S(d)r(p)}	**0.3254**	0.0000	0.0000	0.0000
{S(v)r(p)}	**0.3501**	0.0000	0.0000	0.0000
{S(p)r(p)}	0.0047	0.0000	0.0000	0.0000
{S(.)r(p)}	0.0006	0.0000	0.0000	0.0000
{S(.)r(.)}	0.0024	0.0000	0.0000	0.0000

Producer Area Programs*

Model	DE/PA *	DE/PA **	MDCB	VARAP
{S(t)r(t)}	0.0200	0.0540	0.0033	**0.9930**
{S(Tp)r(t)}	**0.4590**		**0.8023**	0.0070
{S(p)r(t)}	0.1240	**0.3299**	0.1943	0.0000
{S(t)r(p)}	0.1240	0.0924	0.0001	0.0000
{S(.)r(t)}	0.1480	**0.3947**	0.0000	0.0000
{S(Tp)r(Tp)}	**0.1600**		0.0000	0.0000
{S(Tp)r(p)}	0.0090		0.0000	0.0000
{S(d)r(p)}	0.0100	0.0260	0.0000	0.0000
{S(v)r(p)}	0.0070	0.0300	0.0000	0.0000
{S(p)r(p)}	0.0150	0.0400	0.0000	0.0000
{S(.)r(p)}	0.0009	0.0280	0.0000	0.0000
{S(.)r(.)}	0.0100	0.0030	0.0000	0.0000

* DE/PA with trend models, ** DE/PA without trend models

Model Descriptions

S(.) r(.) Constant survival and reporting
S(t) r(t) Time specific survival and reporting
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 based reporting
S(d) r(p) Regulatory period survival with terminal year unique and regulatory period reporting
S(v) r(p) Regulatory period survival with 2 terminal years unique and regulatory period reporting
S(Tp) r(Tp) Linear trend within regulatory period on both survival and reporting
S(Tp) r(p) Linear trend within regulatory period survival and regulatory period reporting (no trend)
S(Tp) r(t) Linear trend within regulatory period survival and time specific reporting (no trend)

Table D25. QAICc weights used to derive model averaged parameter estimates given by Program MARK. Results are for striped bass tagged at >= 28 inches. Models are described in Table 5.

Coast Programs

Model	MADFW	NYOHS	NJDEL	NCCOOP
{S(t)r(t)}	0.00002	0.00009	0.02076	0.03473
{S(Tp)r(t)}	0.00149	0.00022	**0.24351**	0.02508
{S(p)r(t)}	0.01026	0.00089	0.05423	0.05999
{S(t)r(p)}	0.00712	0.00090	0.01566	0.00193
{S(.)r(t)}	0.00997	0.00005	**0.26631**	0.05709
{S(Tp)r(Tp)}	0.03188	0.09525	**0.25370**	0.02335
{S(Tp)r(p)}	0.00443	0.02121	0.06528	0.07649
{S(d)r(p)}	**0.70171**	**0.11307**	0.00353	**0.12263**
{S(v)r(p)}	**0.21241**	**0.64935**	0.07345	**0.22490**
{S(p)r(p)}	0.01581	0.08943	0.00202	**0.31851**
{S(.)r(p)}	0.00197	0.01322	0.00054	0.04838
{S(.)r(.)}	0.00294	0.01632	0.00102	0.00690

Producer Area Programs

Model	DE/PA*	DE/PA**	MDCB	VARAP
{S(t)r(t)}	0.00040	0.00080	0.00012	0.00000
{S(Tp)r(t)}	0.14500		**0.23914**	0.00008
{S(p)r(t)}	0.00390	0.00800	0.00213	0.00037
{S(t)r(p)}	0.00290	0.00600	0.00767	0.00019
{S(.)r(t)}	0.00030	0.00050	0.00000	0.00089
{S(Tp)r(Tp)}	0.00400		0.07671	0.00806
{S(Tp)r(p)}	**0.36100**		0.00020	0.02050
{S(d)r(p)}	0.09700	**0.19800**	0.00079	0.08558
{S(v)r(p)}	0.09900	**0.20200**	**0.67319**	**0.24505**
{S(p)r(p)}	**0.26500**	**0.54100**	0.00004	0.11910
{S(.)r(p)}	0.00600	0.01300	0.00000	**0.17794**
{S(.)r(.)}	0.01500	0.03100	0.00000	**0.31845**

* DE/PA with trend models, ** DE/PA without trend models

Table D26. Total length frequencies of fish tagged in 2001 by program.

	Coast Programs			Producer Area Programs			
TL	MADFW	NYOHS	NJDEL	NCCOOP	DE/PA	MDCB	VARAP
249							
299						1	
349				1		9	
399		3		9	1	33	
449		36	15	114	69	126	
499		157	52	399	128	252	118
549	2	260	153	455	160	200	212
599	4	171	518	389	179	115	143
649	19	133	669	357	130	58	39
699	57	85	363	237	80	42	14
749	99	38	219	189	65	65	15
799	93	47	202	133	42	87	41
849	81	38	128	66	47	102	59
899	44	17	48	43	34	80	70
949	20	25	14	25	17	61	38
999	18	8	2	9	11	44	22
1049	10	5	2	2	13	27	14
1099	9				6	8	7
>1099		4		2	2	4	5
Total	456	1027	2385	2430	984	1314	797

Table D27. Age frequencies of tagged fish recaptured in 2001 by program.

	Coast Programs			Producer Area Programs		
AGE	MADFW	NYOHS	NJDEL	DE/PA	MDCB	VARAP
1						
2					1	
3		15	11	5	3	
4	1	16	118	4	1	21
5	4	48	186	22	7	41
6	4	33	126	19	2	16
7	22	19	59	34	10	6
8	16	27	15	36	21	7
9	15	8	5	14	6	11
10	9	6	1	8	8	4
11	10	9		4	8	3
12	6	3		14	11	4
13	1	3		3	4	2
14	8	3			7	4
15	1	5		1	1	1
16	1	4		1	3	2
17	2	4				1
18		1		1		1
19	1	2			2	
Total	101	206	521	166	95	124

Table D28. Distribution of tag recaptures by state (program) and

Coast Programs

Massachusetts (recaptures in 2001 from fish tagged and released during 1992-

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME							1						1
MA						5	11	11	5	2			34
RI							2	1	1	1			5
CT					1					1		1	3
NY				1	3	1				1	5	3	14
NJ				3	2		1			7	9	4	26
DE						1					1		2
MD				5	6						2		13
VA		3	1							1	4	2	11
NC		1									3	1	5
Total	0	4	1	9	12	7	15	12	6	13	24	11	114

New York - Ocean Haul Seine (recaptures in 2001 from fish tagged/release during 1988-

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME							3	6	5				14
NH							2			1			3
MA						7	14	6	5	5	3		40
RI						3	3	2	1	1	1		12
CT				2	1	1	2	4	2		1		13
NY	1			2		7	9	7	3	10	7	7	4	57
NJ	2	1			6	6	6	2		1	1	8	6	39
PA													0
DE				2							1			3
MD		1		1		1			1			1		5
VA	4				1	1		1				1	6	14
NC														0
Total	7	2	7	8	26	39	28	17	18	13	19	16	200

New Jersey - Delaware Bay (recaptures in 2001 from fish tagged/release during 1989-2001)

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME					1	2	9	3	1				16
NH						3			1				4
MA					12	23	30	19	16	6			106
RI				1	4	10	7	7	2	1			32
CT				1	4	4	4	3	1	1			18
NY				2	17	25	16	9	12	16	9		106
NJ			4	3	27	16	7	2	5	17	34		115
PA				1		1			2				4
DE			1	1	3						3	1	9
MD				2	3	1		1	2	1	3	2	15
VA			1									7	8
NC											1		1
Total	0	0	6	11	71	85	73	44	42	42	50	10	434

North Carolina - Cooperative Trawl Cruise
(recaptures in 2001 from fish tagged/release during 1988-2001)

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME					1	1							2
NH													0
MA					4	14	14	12	2	1			47
RI					1	5	1						7
CT							1	1		1			3
NY					4	4	3	3	6	3			23
NJ				1	2	2			1	3	9		18
PA													0
DE		1	1	1	1	1		1					6
MD	1	4	7	11	13	40	12	14	9	21	9	5	146
VA	2	9	6	1	8	2	2	1	1	16	35	21	104
NC	3	12	1	3				1			1	3	24
Total	6	26	15	17	34	69	33	33	19	45	54	29	380

Producer Area Programs

Delaware / Pennsylvania - Delaware River (1993 - 2001)
(recaptures during 1993-2001 from fish tagged/release during 1993-2001)

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME						1	1						2
NH						1							1
MA					4	11	26	20	7	5			73
RI					1	7	4	5	4	1			22
CT					1	2		1	2	2			8
NY					4	6	9	5	3	6	2	1	36
NJ			3	10	62	63	27	29	23	55	50	8	330
PA			4	25	14	4		2	2				51
DE	1		9	13	16	37	33	17	7	10	10	6	159
MD	9	9	4	11	14	50	31	26	27	42	27	15	265
VA	5	3	5		1	4	1		1	3	28	22	73
NC	1	1									2	2	6
Total	16	13	25	59	117	186	132	105	76	124	119	54	1026

Maryland - Chesapeake Bay Spring Spawning Stock
(recaptures in 2001 from fish tagged/release during 1987-2001)

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
ME			1										1
NH							1						1
MA					1	1	6	3	1				12
RI						2	2	1	1	1			7
CT						1		2					3
NY					2	1	2	4	1	2			12
NJ						4				2	3		9
PA					1								1
DE											1		1
MD	3	3	3	5	13	39	20	7	3	8	8	5	117
VA		1	1		4	5				4	10	6	31
NC	1										1	1	3
Total	4	4	5	5	21	53	31	17	6	17	23	12	198

Virginia - Rappahannock River (recaptures in 2001 from fish tagged/release during 1990-2001)

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
MA					1	1	4	4	4				14
RI						2		1	2				5
CT							1	1					2
NY					1	1			3				5
NJ					2					4	1		7
MD		1			3	6	4	5	3	6	4	1	33
VA	1		6	23	7	3		2	1	7	15	8	73
NC		1										1	2
													0
Total	1	2	6	23	14	13	9	13	13	17	20	10	141

Table D29.Time series of survival (S) and total mortality (Z) estimates adjusted for live release bias. Results are for age 1, 2, and older striped bass tagged during Western Long Island survey. Reporting Rate (DE) = 0.433

Bootstrap GOF S(a*t) r(a*t) prob = 0.51; c-hat was estimated as model dev/mean simulation dev = 180.288/182.654 = 0.98, no c-hat adjustment was used.

Models and AICc weights used to derive model averaged parameter estimates given by Program MARK. All other models tested had delta AIC > 7, and AICc weight < 0.01.

Model	AICc Weights
S(a) r(a*v)	0.45
S(a) r(a*p)	0.40
S(a) r(a*d)	0.12
S(a) r(a*t)	0.02

Age 1 Survival

Year	S(unadj.)	Z(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	Z(adj.)	LCLM (Z) Z(adj.)	UCLM (Z) Z(adj.)
1988	0.277	1.29	0.02	1.00	-0.053	0.292	1.23	1.01	1.47
1989	0.277	1.29	0.01	1.00	-0.024	0.283	1.26	1.04	1.50
1990	0.277	1.29	0.06	0.87	-0.116	0.313	1.16	0.94	1.40
1991	0.277	1.29	0.03	0.91	-0.056	0.293	1.23	1.01	1.47
1992	0.277	1.29	0.01	0.80	-0.017	0.281	1.27	1.05	1.51
1993	0.277	1.29	0.03	0.88	-0.066	0.296	1.22	1.00	1.46
1994	0.277	1.29	0.02	0.86	-0.034	0.286	1.25	1.03	1.49
1995	0.277	1.29	0.01	0.75	-0.019	0.282	1.27	1.05	1.50
1996	0.277	1.29	0.01	0.77	-0.022	0.283	1.26	1.04	1.50
1997	0.277	1.29	0.07	1.00	-0.155	0.327	1.12	0.90	1.36
1998	0.277	1.29	0.02	1.00	-0.040	0.288	1.24	1.03	1.48
1999	0.277	1.29	0.01	1.00	-0.027	0.284	1.26	1.04	1.50
2000	0.277	1.29	0.02	0.94	-0.041	0.288	1.24	1.02	1.48
2001	0.277	1.29	0.00	0.81	-0.007	0.279	1.28	1.06	1.52

Age 2 Survival

Year	S(unadj.)	Z(unadj.)	Recovery Rate	% Live Release	Bias Live Release	S(adj.)	Z(adj.)	LCLM (Z) Z(adj.)	UCLM (Z) Z(adj.)
1988	0.408	0.90	0.04	1.00	-0.097	0.452	0.79	0.62	1.00
1989	0.408	0.90	0.06	0.96	-0.128	0.468	0.76	0.58	0.96
1990	0.408	0.90	0.08	0.93	-0.155	0.483	0.73	0.55	0.93
1991	0.408	0.90	0.08	1.00	-0.170	0.492	0.71	0.53	0.91
1992	0.408	0.90	0.06	0.93	-0.124	0.466	0.76	0.59	0.97
1993	0.408	0.90	0.08	1.00	-0.163	0.487	0.72	0.54	0.92
1994	0.408	0.90	0.03	0.90	-0.056	0.432	0.84	0.66	1.04
1995	0.408	0.90	0.09	0.91	-0.172	0.493	0.71	0.53	0.91
1996	0.408	0.90	0.04	0.89	-0.076	0.442	0.82	0.64	1.02
1997	0.408	0.90	0.07	0.80	-0.120	0.464	0.77	0.59	0.97
1998	0.408	0.90	0.03	0.65	-0.048	0.429	0.85	0.67	1.05
1999	0.408	0.90	0.03	0.82	-0.045	0.427	0.85	0.67	1.05
2000	0.408	0.90	0.06	0.92	-0.119	0.463	0.77	0.59	0.97
2001	0.408	0.90	0.06	0.84	-0.109	0.458	0.78	0.60	0.98

Table D29. Continued.

Age 3+ Survival

Year	S(unadj.)	Z(unadj.)	Recovery	% Released	bias	S(adj.)	Z(adj.)	LCLM (Z)	UCLM (Z)
1988	0.604	0.50	0.07	1.00	-0.161	0.719	0.33	0.26	0.40
1989	0.604	0.50	0.14	0.92	-0.289	0.849	0.16	0.10	0.24
1990	0.604	0.50	0.13	0.87	-0.265	0.822	0.20	0.13	0.27
1991	0.604	0.50	0.09	0.94	-0.177	0.734	0.31	0.24	0.38
1992	0.604	0.50	0.11	0.87	-0.222	0.776	0.25	0.19	0.33
1993	0.604	0.50	0.07	1.00	-0.153	0.713	0.34	0.27	0.41
1994	0.604	0.50	0.03	1.00	-0.070	0.649	0.43	0.37	0.51
1995	0.604	0.50	0.07	0.73	-0.121	0.687	0.38	0.31	0.45
1996	0.604	0.50	0.07	0.73	-0.116	0.683	0.38	0.32	0.46
1997	0.604	0.50	0.05	0.58	-0.066	0.647	0.44	0.37	0.51
1998	0.604	0.50	0.11	0.56	-0.147	0.707	0.35	0.28	0.42
1999	0.604	0.50	0.05	0.56	-0.057	0.641	0.45	0.38	0.52
2000	0.604	0.50	0.06	0.75	-0.101	0.671	0.40	0.33	0.47
2001	0.604	0.50	0.11	1.00	-0.230	0.784	0.24	0.18	0.32

Table D30. Total length frequencies of WLI 2001 tag releases, and ages of WLI 2001 tag recaptures.

TL	WLI
199	86
249	126
299	72
349	29
399	30
449	22
499	21
549	12
599	8
649	3
699	
749	
799	1
849	
899	
949	
999	
1049	
1099	
>1099	
Total	410

AGE	WLI
1	1
2	19
3	10
4	6
5	5
6	2
7	
8	
9	2
10	
Total	45

Table D31. Distribution of tag recaptures by state and month for all recaptures 1988 - 2001

State	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
NB								1	1				2
ME					1	3	2	5	1				12
NH													0
MA					5	14	10	2	3	3		1	38
RI				3	5	2		1	3	3	1		18
CT			1		6	3	2	2	2	4	1	1	22
NY	5	3	8	34	54	67	63	63	85	119	73	16	590
NJ		1	1	1	3		1	3	1	3	11	3	28
PA													0
DE												1	1
MD	1		1	1	2					2	1		8
VA	1		1							1		1	4
NC												1	1
Total	7	4	12	39	76	89	78	77	96	135	87	24	724

Table D32. R/M estimates of exploitation rates of >= 28 inch striped bass from tagging programs (with reporting rate adjustment of 0.43, and hooking mortality rate adjustment of 0.08).

Year	NJDB	NYOHS	NCCOOP	MA	VA York	VA Rap	MDCB	DE/PA	NYHUD
1987	*	0.052	*	*	*	0.031	0.006	*	*
1988	*	0.038	0.076	*	*	0.132	0.041	*	0.110
1989	0.019	0.060	0.048	*	*	0.007	0.037	*	0.083
1990	0.041	0.063	0.080	*	*	0.090	0.084	*	0.135
1991	0.333	0.131	0.076	0.051	0.107	0.125	0.135	*	0.102
1992	0.078	0.140	0.140	0.070	0.034	0.121	0.131	0.178	0.152
1993	0.089	0.135	0.112	0.041	0.090	0.163	0.123	0.213	0.172
1994	0.086	0.197	0.088	0.052	0.138	0.103	0.115	0.121	0.118
1995	0.122	0.144	0.142	0.089	0.229	0.298	0.208	0.142	0.153
1996	0.217	0.475	0.116	0.140	0.233	0.040	0.172	0.337	0.232
1997	0.255	0.133	0.202	0.098	0.643	0.192	0.239	0.323	0.335
1998	0.371	0.341	0.224	0.084	0.160	0.324	0.196	0.300	0.218
1999	0.173	0.258	0.236	0.137	0.005	0.232	0.198	0.177	0.225
2000	0.139	0.059	0.062	0.071	*	0.128	0.173	0.322	0.139
2001	0.154	**	0.154	**	*	0.101	0.128	0.280	*

* Years when few or no striped bass were tagged and
** NYOHS and MA have fall tagging programs, and recapture interval of terminal year (2000) is fall 2000 to fall 2001; NCCOOP is a winter tagging program (Jan./Feb.) with recapture interval of terminal year (2001) from January 2001 to January 2002; others are spring tagging programs recapture interval of terminal year (2001) from spring 2001 to spring 2002.

Table D33. R/M estimates of catch rates of >= 28 inch striped bass from tagging programs. (with reporting rate adjustment of 0.43)

Year	NJDB	NYOHS	NCCOOP	MA	VA York	VA Rap	MDCB	DE/PA	NYHUD
1987	*	0.284	*	*	*	0.388	0.080	*	*
1988	*	0.224	0.256	*	*	0.312	0.091	*	0.220
1989	0.233	0.215	0.141	*	*	0.090	0.095	*	0.285
1990	0.517	0.215	0.173	*	*	0.203	0.175	*	0.362
1991	0.620	0.345	0.206	0.156	0.155	0.212	0.277	*	0.250
1992	0.275	0.268	0.269	0.133	0.089	0.216	0.248	0.179	0.302
1993	0.230	0.273	0.278	0.106	0.211	0.266	0.266	0.326	0.348
1994	0.302	0.358	0.208	0.161	0.278	0.191	0.225	0.201	0.256
1995	0.240	0.267	0.275	0.187	0.310	0.336	0.274	0.252	0.250
1996	0.355	0.589	0.154	0.241	0.287	0.074	0.262	0.409	0.330
1997	0.445	0.133	0.254	0.203	0.930	0.228	0.298	0.345	0.437
1998	0.406	0.392	0.285	0.155	0.197	0.423	0.229	0.353	0.304
1999	0.322	0.258	0.273	0.151	0.068	0.273	0.237	0.197	0.315
2000	0.250	0.152	0.128	0.107	*	0.182	0.200	0.396	0.217
2001	0.230	**	0.212	**	*	0.171	0.169	0.312	*

* Years when few or no striped bass were tagged and
** See footnote in Table D32.

Table D34. R/M estimates of exploitation rates of >= 18 inch striped bass from tagging programs (with reporting rate adjustment of 0.43, and hooking mortality rate adjustment of 0.08).

Year	NJDB	NYOHS	NCCOOP	MA	VA York	VA Rap	MDCB	DE/PA	NYHUD
1987	*	0.024	*	*	*	0.051	0.021	*	*
1988	*	0.031	0.047	*	*	0.132	0.017	*	0.060
1989	0.037	0.035	0.032	*	*	0.046	0.013	*	0.059
1990	0.112	0.044	0.070	*	*	0.120	0.068	*	0.094
1991	0.055	0.053	0.085	0.051	0.114	0.075	0.102	0.031	0.077
1992	0.060	0.047	0.164	0.057	0.096	0.063	0.140	0.133	0.105
1993	0.030	0.046	0.106	0.038	0.101	0.114	0.111	0.116	0.123
1994	0.041	0.064	0.089	0.040	0.094	0.102	0.121	0.119	0.085
1995	0.061	0.035	0.139	0.064	0.169	0.196	0.196	0.129	0.132
1996	0.102	0.060	0.109	0.109	0.155	0.132	0.172	0.170	0.170
1997	0.111	0.032	0.166	0.103	0.223	0.200	0.210	0.156	0.250
1998	0.136	0.055	0.150	0.056	0.167	0.149	0.207	0.146	0.177
1999	0.057	0.044	0.219	0.090	0.118	0.153	0.163	0.117	0.152
2000	0.072	0.039	0.088	0.050	*	0.096	0.133	0.147	0.101
2001	0.093	**	0.118	**	*	0.066	0.124	0.145	*

* Years when few or no striped bass were tagged and
** NYOHS and MA have fall tagging programs, and recapture interval of terminal year (2000) is fall 2000 to fall 2001; NCCOOP is a winter tagging program (Jan./Feb.) with recapture interval of terminal year (2001) from January 2001 to January 2002; others are spring tagging programs recapture interval of terminal year (2001) from spring 2001 to spring 2002.

Table D35. R/M estimates of catch rates of >= 18 inch striped bass from tagging programs. (with reporting rate adjustment of 0.43)

Year	NJDB	NYOHS	NCCOOP	MA	VA York	VA Rap	MDCB	DE/PA	NYHUD
1987	*	0.177	*	*	*	0.080	0.157	*	*
1988	*	0.242	0.216	*	*	0.274	0.100	*	0.192
1989	0.297	0.193	0.119	*	*	0.205	0.082	*	0.232
1990	0.675	0.174	0.180	*	*	0.279	0.131	*	0.293
1991	0.234	0.202	0.200	0.156	0.252	0.157	0.187	0.100	0.272
1992	0.264	0.142	0.293	0.120	0.341	0.125	0.245	0.211	0.238
1993	0.189	0.187	0.207	0.124	0.235	0.214	0.187	0.253	0.285
1994	0.200	0.155	0.199	0.143	0.253	0.179	0.218	0.226	0.214
1995	0.211	0.139	0.232	0.183	0.294	0.255	0.290	0.263	0.223
1996	0.265	0.190	0.151	0.237	0.221	0.190	0.281	0.263	0.288
1997	0.332	0.141	0.227	0.199	0.305	0.239	0.306	0.261	0.356
1998	0.323	0.150	0.247	0.105	0.230	0.219	0.297	0.265	0.260
1999	0.190	0.152	0.274	0.107	0.160	0.216	0.232	0.192	0.233
2000	0.215	0.141	0.158	0.093	*	0.144	0.233	0.269	0.205
2001	0.217	**	0.180	**	*	0.148	0.175	0.242	*

* Years when few or no striped bass were tagged and
** See footnote in Table D34.

Figure D24. Comparison of VPA and Tag program fishing mortality estimates.

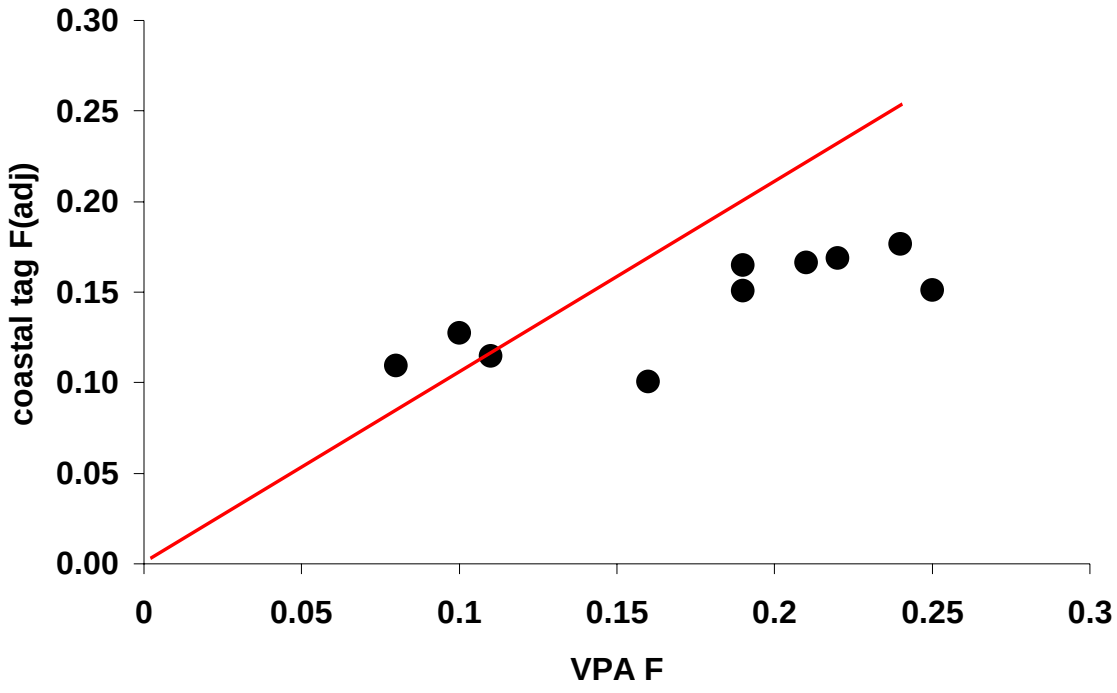

Figure D25. Comparison of VPA and Cooperative Cruise Tag program fishing mortality estimates.

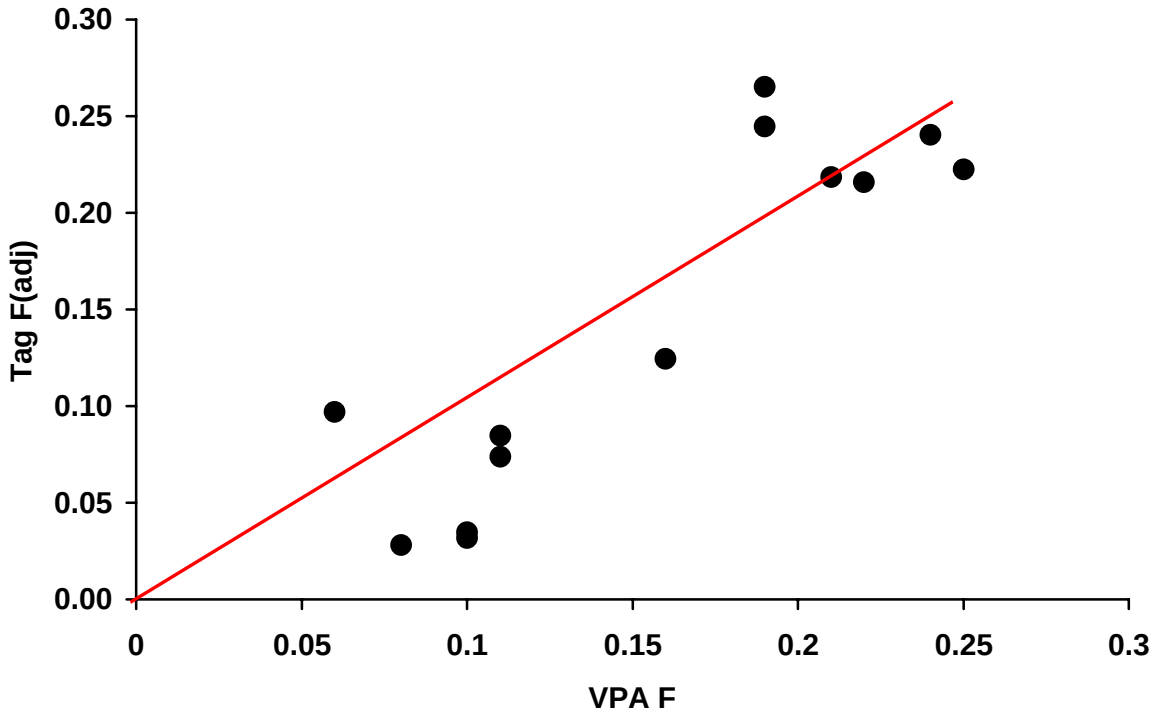

Figure D26. Time series of VPA and Tag estimated fishing mortality.