

11.0 Tables

Table 1. Summer Flounder Commercial Landings by State (thousands of lb) and coastwide (thousands of pounds (>000 lbs), metric tons (mt)).

Year	ME	NH	MA	RI	CT	Total		DE	MD+	VA+	NC+	'000 lbs	mt
						NY	NJ						
1940	0	0	2847	258	149	1814	3554	3	444	1247	498	10814	4905
1941	na	na	na	na	na	na	na	na	183	764	na	947	430
1942	0	0	193	235	126	1286	987	2	143	475	498	3945	1789
1943	0	0	122	202	220	1607	2224	11	143	475	498	5502	2496
1944	0	0	719	414	437	2151	3159	8	197	2629	498	10212	4632
1945	0	0	1730	467	270	3182	3102	2	460	1652	1204	12297	5578
1946	0	0	1579	625	478	3494	3310	22	704	2889	1204	14305	6489
1947	0	0	1467	333	813	2695	2302	46	532	1754	1204	11146	5056
1948	0	0	2370	406	518	2308	3044	15	472	1882	1204	12219	5542
1949	0	0	1787	470	372	3560	3025	8	783	2361	1204	13570	6155
1950	0	0	3614	1036	270	3838	2515	25	543	1761	1840	15442	7004
1951	0	0	4506	1189	441	2636	2865	20	327	2006	1479	15469	7017
1952	0	0	4898	1336	627	3680	4721	69	467	1671	2156	19625	8902
1953	0	0	3836	1043	396	2910	7117	53	1176	1838	1844	20213	9168
1954	0	0	3363	2374	213	3683	6577	21	1090	2257	1645	21223	9627
1955	0	0	5407	2152	385	2608	5208	26	1108	1706	1126	19726	8948
1956	0	0	5469	1604	322	4260	6357	60	1049	2168	1002	22291	10111
1957	0	0	5991	1486	677	3488	5059	48	1171	1692	1236	20848	9456
1958	0	0	4172	950	360	2341	8109	209	1452	2039	892	20524	9310
1959	0	0	4524	1070	320	2809	6294	95	1334	3255	1529	21230	9630
1960	0	0	5583	1278	321	2512	6355	44	1028	2730	1236	21087	9565
1961	0	0	5240	948	155	2324	6031	76	539	2193	1897	19403	8801
1962	0	0	3795	676	124	1590	4749	24	715	1914	1876	15463	7014
1963	0	0	2296	512	98	1306	4444	17	550	1720	2674	13617	6177
1964	0	0	1384	678	136	1854	3670	16	557	1492	2450	12237	5551
1965	0	0	431	499	106	2451	3620	25	734	1977	272	10115	4588
1966	0	0	264	456	90	2466	3830	13	630	2343	4017	14109	6400
1967	0	0	447	706	48	1964	3035	0	439	1900	4391	12930	5865
1968	0	0	163	384	35	1216	2139	0	350	2164	2602	9053	4106
1969	0	0	78	267	23	574	1276	0	203	1508	2766	6695	3037
1970	0	0	41	259	23	900	1958	0	371	2146	3163	8861	4019
1971	0	0	89	275	34	1090	1850	0	296	1707	4011	9352	4242
1972	0	0	93	275	7	1101	1852	0	277	1857	3761	9223	4183
1973	0	0	506	640	52	1826	3091	*	495	3232	6314	16156	7328
1974	*	0	1689	2552	26	2487	3499	0	709	3111	10028	22581	10243
1975	0	0	1768	3093	39	3233	4314	5	893	3428	9539	26311	11934
1976	*	0	4019	6790	79	3203	5647	3	697	3303	9627	33368	15135
1977	0	0	1477	4058	64	2147	6566	5	739	4540	10332	29927	13575
1978	0	0	1439	2238	111	1948	5414	1	676	5940	10820	28586	12966
1979	5	0	1175	2825	30	1427	6279	6	1712	10019	16084	39561	17945

* = less than 500 lb; na = not available; + = NMFS did not identify flounders to species prior to 1978 for NC and 1957 for both MD and VA and thus the numbers represent all unclassified flounders.

Sources: 1940-1977 USDC 1984; 1978-1979 unpublished NMFS General Canvas data

Table 1 continued.

Year	ME	NH	MA	RI	CT	NY	Total NJ	DE	MD+	VA+	NC+	'000 lbs	mt
1980	4	0	367	1277	48	1246	4805	1	1324	8504	13643	31216	14159
1981	3	0	598	2861	81	1985	4008	7	403	3652	7459	21056	9551
1982	18	*	1665	3983	64	1865	4318	8	360	4332	6315	22928	10400
1983	84	0	2341	4599	129	1435	4826	5	937	8134	7057	29548	13403
1984	2	*	1488	4479	131	2295	6364	9	813	9673	12510	37765	17130
1985	3	*	2249	7533	183	2517	5634	4	577	5037	8614	32352	14675
1986	0	*	2954	7042	160	2738	4017	4	316	3712	5924	26866	12186
1987	8	*	3327	4774	609	2641	4451	4	319	5791	5128	27052	12271
1988	5	0	2421	4719	741	3439	6006	7	514	7756	6770	32377	14686
1989	9	0	1878	3083	513	1464	2865	3	204	3689	4206	17913	8125
1990	3	0	628	1408	343	405	1458	2	138	2144	2728	9257	4199
1991	0	0	1124	1672	399	719	2341	4	232	3715	3516	13722	6224
1992	*	*	1383	2532	495	1239	2871	12	319	5172	2576	16599	7529
1993	6	0	903	1942	225	849	2466	6	254	3052	2894	12599	5715
1994	4	0	1031	2649	371	1269	2356	4	179	3091	3571	14525	6588
1995	5	0	1128	2325	319	1248	2319	4	174	3304	4555	15381	6977
1996	8	0	800	1763	266	936	2369	8	266	2286	4218	12920	5861
1997	3	0	745	1566	257	823	1321	5	215	2370	1501	8806	3994
1998	6	0	707	1712	263	822	1863	11	224	2616	2967	11190	5076
1999	6	0	813	1637	245	804	1918	8	201	2196	2801	10627	4820
2000	7	0	789	1703	240	800	1848	12	252	2206	3354	11211	5085
2001	22	0	694	1800	267	751	1745	7	223	2660	2789	10958	4970
2002	1	0	1009	2286	357	1053	2407	3	327	2970	4078	14491	6573
2003	0	0	926	2178	272	1073	2384	6	329	3492	3559	14219	6450
2004	0	0	1193	3085	406	1594	2831	8	284	3906	4834	18141	8228
2005	3	0	1274	2926	449	1804	2529	5	333	3869	4059	17253	7826
2006	7	0	910	2120	314	1262	2346	4	248	2669	3926	13806	6262
2007	3	0	660	1515	207	939	1698	3	178	2025	2669	9897	4489

* = less than 500 lb; na = not available;

Sources: 1980-2006 State and Federal reporting systems

Table 2. 1994 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata). Most landings for the first quarter of 1994 (Jan-Mar) were reported under the previous NER weighout system and are not included here; the total will therefore not match that for 1994 in Table 1.

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	0.1	0.0	3.0	0.2	0.0	0.0
NH	0.0	0.0	0.0	0.0	0.0	0.0
MA	352.6	16.4	265.8	13.0	109.5	10.3
RI	476.5	22.1	393.2	19.2	253.5	23.9
CT	0.0	0.0	0.0	0.0	0.0	0.0
NY	121.1	5.6	373.8	18.2	67.4	6.4
NJ	633.1	29.4	535.2	26.1	404.0	38.0
DE	0.0	0.0	56.0	2.7	0.0	0.0
MD	45.2	2.1	39.7	1.9	37.2	3.5
VA	524.5	24.4	382.2	18.7	190.3	17.9
Unknown	0.0	0.0	1.1	0.0	0.0	0.0
Total	2152.9	100.0	2049.9	100.0	1061.8	100.0
Month	mt	%	mt	%	mt	%
Jan	0.0	0.0	0.0	0.0	0.0	0.0
Feb	5.2	0.2	0.0	0.0	0.0	0.0
Mar	0.0	0.0	6.8	0.3	0.0	0.0
Apr	114.6	5.3	138.8	6.8	68.6	6.5
May	235.3	10.9	221.0	10.8	92.2	8.8
Jun	228.0	10.6	174.9	8.5	72.2	6.8
Jul	198.2	9.2	186.7	9.1	111.7	10.5
Aug	210.0	9.8	228.1	11.1	104.7	9.9
Sep	355.7	16.5	384.3	18.8	230.3	21.7
Oct	302.4	14.1	301.6	14.7	146.6	13.8
Nov	204.3	9.5	158.3	7.7	99.0	9.3
Dec	299.2	13.9	249.3	12.2	135.5	12.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	2152.9	100.0	2049.9	100.0	1061.8	100.0

Table 3. 1995 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata). North Carolina landings not reported through the Dealer/VTR system; the total will therefore not match that for 1995 in Table 1.

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	2.4	0.1	9.8	0.2	2.4	0.1
NH	0.0	0.0	7.5	0.2	0.0	0.0
MA	511.7	10.4	487.9	10.5	179.1	8.1
RI	1054.8	21.5	914.9	19.8	569.5	25.6
CT	144.5	2.9	113.1	0.0	0.0	0.0
NY	566.1	11.5	648.5	14.0	141.5	6.4
NJ	1052.0	21.4	984.4	21.3	594.1	26.7
DE	1.9	0.0	0.0	0.0	0.0	0.0
MD	78.8	1.6	56.0	1.2	45.8	2.1
VA	1498.5	30.5	1390.0	30.0	690.2	31.1
Unknown	0.0	0.0	41.1	0.0	0.0	0.0
Total	4910.7	100.0	4666.7	100.0	2222.5	100.0
Month	mt	%	mt	%	mt	%
Jan	1550.1	31.6	1636.6	35.1	749.4	33.7
Feb	692.4	14.1	768.1	16.5	416.5	18.7
Mar	128.8	2.6	137.4	2.9	52.7	2.4
Apr	130.1	2.7	140.5	3.0	80.2	3.6
May	268.3	5.5	304.5	6.5	101.6	4.6
Jun	203.0	4.1	192.9	4.1	67.7	3.1
Jul	188.0	3.8	131.4	2.8	64.7	2.9
Aug	350.0	7.1	325.8	7.0	138.5	6.2
Sep	300.0	6.1	288.7	6.2	145.7	6.6
Oct	338.6	6.9	326.1	7.0	196.9	8.9
Nov	305.3	6.2	141.7	3.0	82.0	3.7
Dec	436.5	8.9	272.9	5.9	126.6	5.7
Unknown	19.8	0.4	0.0	0.0	0.0	0.0
Total	4910.7	100.0	4666.7	100.0	2222.5	100.0

Table 4. 1996 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata). North Carolina landings not reported through the Dealer/VTR system; the total will therefore not match that for 1996 in Table 1.

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	3.7	0.1	5.3	0.2	1.4	0.1
NH	0.0	0.0	26.5	0.8	0.0	0.0
MA	363.0	9.8	336.9	10.4	167.0	9.7
RI	799.8	21.5	654.8	20.3	441.7	25.5
CT	120.5	0.0	98.0	3.0	0.0	0.0
NY	424.8	11.1	374.6	11.6	99.5	5.8
NJ	1074.6	28.7	974.9	30.2	561.6	32.4
DE	3.6	0.0	0.4	0.0	0.0	0.0
MD	120.4	2.7	91.3	2.8	79.9	4.6
VA	1036.8	26.2	634.0	19.7	381.0	22.0
Unknown	0.0	0.0	113.9	3.4	0.0	0.0
Total	3947.3	100.0	3310.6	100.0	1732.1	100.0
Month	mt	%	mt	%	mt	%
Jan	1290.9	33.0	1049.3	31.7	442.2	25.5
Feb	433.0	11.6	418.0	12.6	232.4	13.4
Mar	26.9	0.6	63.9	1.9	13.3	0.8
Apr	127.7	3.0	131.0	4.0	29.6	1.7
May	330.7	8.4	188.4	5.7	109.4	6.3
Jun	233.6	5.9	204.8	6.2	116.2	6.7
Jul	256.6	6.5	204.2	6.2	120.3	6.9
Aug	268.8	6.6	243.2	7.4	116.9	6.8
Sep	611.5	15.4	583.6	17.6	391.1	22.6
Oct	342.8	8.8	209.4	6.3	148.9	8.6
Nov	13.4	0.2	10.4	0.3	10.1	0.6
Dec	10.8	0.1	4.6	0.1	1.9	0.6
Unknown	0.7	0.0	0.0	0.0	0.0	0.0
Total	3947.3	100.0	3310.6	100.0	1732.1	100.0

Table 5. 1997 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	1.3	0.0	1.4	0.0	1.4	0.1
NH	0.0	0.0	0.0	0.0	0.0	0.0
MA	338.0	8.5	259.4	7.7	108.1	5.9
RI	710.0	17.8	593.4	17.6	416.0	22.6
CT	116.6	2.9	76.3	2.3	0.0	0.0
NY	373.3	9.3	343.3	10.2	72.4	3.9
NJ	599.2	15.0	541.9	16.0	443.0	24.1
DE	2.4	0.1	0.1	0.0	0.0	0.0
MD	97.5	2.4	80.0	2.4	73.1	4.0
VA	1075.1	26.9	817.4	24.2	624.1	33.9
NC	681.0	17.0	663.6	19.6	100.3	5.5
Unknown	0.0	0.0	0.4	0.0	0.0	0.0
Total	3994.4	100.0	3377.2	100.0	1838.4	100.0

Month	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
Jan	1684.7	42.2	1427.5	42.3	624.6	34.0
Feb	195.6	4.9	206.3	6.1	76.4	4.2
Mar	216.5	5.4	217.2	6.4	115.3	6.3
Apr	240.1	6.0	193.7	5.7	125.6	6.8
May	213.2	5.3	165.6	4.9	111.9	6.1
Jun	245.2	6.1	192.9	5.7	124.1	6.8
Jul	267.2	6.7	188.5	5.6	94.6	5.1
Aug	202.3	5.1	154.7	4.6	75.2	4.1
Sep	356.6	8.9	312.9	9.3	238.9	13.0
Oct	334.5	8.4	286.8	8.5	233.5	12.7
Nov	24.2	0.6	17.1	0.5	11.7	0.6
Dec	14.3	0.4	13.8	0.4	6.6	0.4
Unknown	0.0	0.0	0.2	0.0	0.0	0.0
Total	3994.4	100.0	3377.2	100.0	1838.4	100.0

Table 6. 1998 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	2.6	0.1	3.8	0.1	0.0	0.0
NH	0.0	0.0	0.1	0.0	0.0	0.0
MA	320.5	6.3	221.7	5.6	98.5	3.8
RI	776.6	15.3	569.7	14.4	421.4	16.4
CT	119.2	2.3	101.7	2.6	0.0	0.0
NY	372.6	7.3	297.7	7.5	52.6	2.0
NJ	845.0	16.6	784.2	19.8	642.3	24.9
DE	5.0	0.1	0.1	0.0	0.0	0.0
MD	101.7	2.0	73.5	1.9	68.1	2.6
VA	1186.5	23.4	1017.4	25.6	797.9	31.0
NC	1346.0	26.5	857.3	21.6	494.9	19.2
Unknown	0.0	0.0	41.2	1.0	0.0	0.0
Total	5075.7	100.0	3968.4	100.0	2575.7	100.0

Month	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
Jan	1631.4	32.1	1325.6	33.4	898.4	34.9
Feb	474.9	9.4	442.6	11.2	191.7	7.4
Mar	211.8	4.2	186.5	4.7	109.3	4.2
Apr	260.3	5.1	226.3	5.7	154.0	6.0
May	307.9	6.1	217.5	5.5	149.3	5.8
Jun	211.7	4.2	122.2	3.1	75.4	2.9
Jul	275.5	5.4	159.7	4.0	77.4	3.0
Aug	172.7	3.4	112.3	2.8	55.5	2.2
Sep	404.1	8.0	337.2	8.5	284.6	11.0
Oct	53.3	1.0	44.2	1.1	13.8	0.5
Nov	539.4	10.6	495.1	12.5	385.6	15.0
Dec	532.7	10.5	299.0	7.5	180.1	7.0
Unknown	0.0	0.0	0.2	0.0	0.6	0.0
Total	5075.7	100.0	3968.4	100.0	2575.7	100.0

Table 7. 1999 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	2.6	0.1	3.9	0.1	2.5	0.1
NH	0.0	0.0	0.3	0.0	0.0	0.0
MA	368.6	7.6	246.9	6.4	138.8	5.8
RI	742.3	15.4	612.1	15.8	437.5	18.2
CT	111.2	2.3	82.0	2.1	2.2	0.1
NY	364.7	7.6	271.5	7.0	40.7	1.7
NJ	870.0	18.0	818.5	21.1	586.6	24.3
DE	3.4	0.1	0.0	0.0	0.0	0.0
MD	91.2	1.9	62.8	1.6	59.7	2.5
VA	996.0	20.7	715.7	18.5	517.5	21.5
NC	1270.4	26.4	1004.1	25.9	624.8	25.9
Unknown	0.0	0.0	54.7	1.4	0.0	0.0
Total	4820.4	100.0	3872.5	100.0	2410.3	100.0

Month	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
Jan	1673.4	34.7	1603.0	41.4	1011.3	42.0
Feb	505.3	10.5	539.5	13.9	264.0	11.0
Mar	238.9	5.0	212.1	5.5	109.3	4.5
Apr	294.4	6.1	237.6	6.1	125.4	5.2
May	290.7	6.0	196.2	5.1	144.8	6.0
Jun	165.1	3.4	92.4	2.4	63.6	2.6
Jul	279.7	5.8	134.0	3.5	88.3	3.7
Aug	146.9	3.0	89.1	2.3	66.0	2.7
Sep	325.6	6.8	250.4	6.5	197.6	8.2
Oct	186.6	3.9	161.9	4.2	124.3	5.2
Nov	276.5	5.7	215.3	5.6	137.8	5.7
Dec	437.3	9.1	139.9	3.6	77.5	3.2
Unknown	0.0	0.0	1.1	0.0	0.5	0.0
Total	4820.4	100.0	3872.5	100.0	2410.3	100.0

Table 8. 2000 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	3.1	0.1	5.4	0.1	0.0	0.0
NH	0.0	0.0	2.3	0.1	0.0	0.0
MA	357.9	7.0	226.0	5.1	66.5	2.5
RI	772.7	15.2	570.2	12.9	420.1	15.6
CT	108.7	2.1	84.8	1.9	0.0	0.0
NY	362.8	7.1	265.4	6.0	42.5	1.6
NJ	838.3	16.5	831.9	18.8	650.8	24.1
DE	5.6	0.1	0.1	0.0	0.0	0.0
MD	114.2	2.2	86.1	1.9	70.0	2.6
VA	1000.9	19.7	928.0	21.0	669.3	24.8
NC	1521.2	29.9	1381.7	31.2	778.2	28.9
Unknown	0.0	0.0	42.5	1.0	0.0	0.0
Total	5085.4	100.0	4424.4	100.0	2697.4	100.0
Month	mt	%	mt	%	mt	%
Jan	1149.5	22.6	1105.6	25.0	733.3	27.2
Feb	1175.1	23.1	1119.9	25.3	658.8	24.4
Mar	347.8	6.8	317.9	7.2	161.7	6.0
Apr	226.9	4.5	198.5	4.5	117.4	4.4
May	311.3	6.1	216.4	4.9	136.1	5.0
Jun	169.7	3.3	82.7	1.9	46.6	1.7
Jul	324.1	6.4	203.4	4.6	111.3	4.1
Aug	159.9	3.1	110.6	2.5	52.7	2.0
Sep	334.1	6.6	261.9	5.9	201.6	7.5
Oct	54.6	1.1	33.2	0.8	17.8	0.7
Nov	484.3	9.5	473.2	10.7	325.4	12.1
Dec	348.1	6.8	301.1	6.8	134.7	5.0
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	5085.4	100.0	4424.4	100.0	2697.4	100.0

Table 9. 2001 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	10.0	0.2	17.8	0.4	9.1	0.3
NH	0.0	0.0	0.2	0.0	0.0	0.0
MA	314.8	6.3	248.1	5.9	68.8	2.6
RI	815.9	16.4	594.4	14.2	426.6	16.2
CT	121.2	2.4	86.9	2.1	0.2	0.0
NY	340.8	6.9	241.4	5.8	44.5	1.7
NJ	791.7	15.9	745.3	17.8	611.9	23.2
DE	3.4	0.1	0.1	0.0	0.0	0.0
MD	101.0	2.0	73.0	1.7	65.1	2.5
VA	1206.4	24.3	1044.8	24.9	705.1	26.7
NC	1265.1	25.5	1104.6	26.4	707.9	26.8
Unknown	0.0	0.0	35.4	0.8	0.0	0.0
Total	4970.3	100.0	4192.0	100.0	2639.2	100.0
Month	mt	%	mt	%	mt	%
Jan	1617.0	32.5	1474.6	35.2	983.1	37.2
Feb	467.1	9.4	417.5	10.0	212.3	8.0
Mar	199.8	4.0	171.1	4.1	80.5	3.0
Apr	246.4	5.0	219.6	5.2	157.0	5.9
May	236.0	4.7	148.7	3.5	91.0	3.4
Jun	188.9	3.8	100.3	2.4	61.8	2.3
Jul	271.4	5.5	175.1	4.2	103.9	3.9
Aug	198.1	4.0	133.7	3.2	48.1	1.8
Sep	304.6	6.1	259.2	6.2	193.4	7.3
Oct	81.6	1.6	50.5	1.2	26.0	1.0
Nov	578.3	11.6	545.5	13.0	356.3	13.5
Dec	581.1	11.7	496.2	11.8	325.9	12.3
Unknown	0.0	0.0	0.0	0.0		0.0
Total	4970.3	100.0	4192.0	100.0	2639.2	100.0

Table 10. 2002 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	0.2	0.0	0.7	0.0	0.0	0.0
NH	0.0	0.0	0.2	0.0	0.0	0.0
MA	457.9	7.0	325.1	5.6	90.9	2.6
RI	1037.1	15.8	788.8	13.5	553.0	15.7
CT	161.8	2.5	145.1	2.5	0.0	0.0
NY	477.6	7.3	394.7	6.8	79.8	2.3
NJ	1091.8	16.6	1061.9	18.2	808.5	23.0
DE	1.2	0.0	0.0	0.0	0.0	0.0
MD	148.2	2.3	106.5	1.8	88.8	2.5
VA	1347.3	20.5	1221.9	20.9	744.0	21.2
NC	1849.9	28.1	1762.1	30.2	1151.0	32.7
Unknown	0.0	0.0	36.7	0.6	0.0	0.0
Total	6573.0	100.0	5843.6	100.0	3516.0	100.0
Month	mt	%	mt	%	mt	%
Jan	1107.7	16.9	1067.8	18.3	666.6	19.0
Feb	1020.2	15.5	979.1	16.8	550.8	15.7
Mar	877.5	13.4	848.9	14.5	466.8	13.3
Apr	501.1	7.6	434.2	7.4	281.1	8.0
May	247.4	3.8	162.8	2.8	97.3	2.8
Jun	286.9	4.4	180.9	3.1	94.4	2.7
Jul	283.5	4.3	213.6	3.7	105.7	3.0
Aug	389.4	5.9	261.6	4.5	153.5	4.4
Sep	422.2	6.4	367.0	6.3	248.5	7.1
Oct	161.1	2.5	126.9	2.2	75.1	2.1
Nov	646.7	9.8	587.5	10.1	387.0	11.0
Dec	629.2	9.6	613.4	10.5	389.3	11.1
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	6573.0	100.0	5843.6	100.0	3516.0	100.0

Table 11. 2003 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	0.0	0.0	0.8	0.0	0.0	0.0
NH	0.0	0.0	0.1	0.0	0.0	0.0
MA	419.9	6.5	241.2	5.2	67.3	2.5
RI	988.1	15.3	609.5	13.2	408.4	14.9
CT	123.6	1.9	107.2	2.3	0.0	0.0
NY	486.9	7.5	319.4	6.9	60.6	2.2
NJ	1081.2	16.8	906.9	19.6	699.9	25.6
DE	2.5	0.0	0.0	0.0	0.0	0.0
MD	149.4	2.3	87.9	1.9	74.3	2.7
VA	1583.8	24.6	901.1	19.5	557.6	20.4
NC	1614.4	25.0	1367.8	29.6	863.6	31.6
Unknown	0.0	0.0	77.6	1.7	0.0	0.0
Total	6449.7	100.0	4619.4	100.0	2731.7	100.0
Month	mt	%	mt	%	mt	%
Jan	983.7	15.3	1018.2	22.0	585.0	21.4
Feb	1147.8	17.8	1066.9	23.1	575.6	21.1
Mar	1099.3	17.0	1028.2	22.3	644.9	23.6
Apr	197.4	3.1	167.8	3.6	112.0	4.1
May	288.8	4.5	191.1	4.1	121.0	4.4
Jun	245.2	3.8	141.4	3.1	69.8	2.6
Jul	313.2	4.9	214.4	4.6	118.2	4.3
Aug	283.2	4.4	158.6	3.4	70.6	2.6
Sep	288.7	4.5	193.2	4.2	141.4	5.2
Oct	307.8	4.8	207.7	4.5	143.0	5.2
Nov	696.4	10.8	152.8	3.3	111.5	4.1
Dec	598.3	9.3	79.2	1.7	38.8	1.4
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	6449.7	100.0	4619.4	100.0	2731.7	100.0

Table 12. 2004 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	0.1	0.0	4.3	0.1	0.0	0.0
NH	0.1	0.0	0.1	0.0	0.0	0.0
MA	541.2	6.6	436.9	6.1	139.9	3.3
RI	1399.1	17.0	881.1	12.3	592.6	14.0
CT	184.2	2.2	155.7	2.2	53.0	1.3
NY	723.2	8.8	641.3	9.0	155.4	3.7
NJ	1283.9	15.6	1249.8	17.5	973.7	23.0
DE	3.4	0.0	0.0	0.0	0.0	0.0
MD	128.8	1.6	121.8	1.7	91.1	2.2
VA	1771.8	21.5	1642.4	22.9	1018.9	24.1
NC	2192.7	26.6	1957.1	27.3	1208.7	28.6
Unknown	0.0	0.0	71.5	1.0	0.0	0.0
Total	8228.5	100.0	7162.1	100.0	4233.2	100.0
Month	mt	%	mt	%	mt	%
Jan	1229.3	14.9	1067.2	14.9	696.4	16.5
Feb	1822.1	22.1	1637.0	22.9	898.2	21.2
Mar	960.9	11.7	916.4	12.8	569.3	13.4
Apr	317.7	3.9	319.7	4.5	163.9	3.9
May	304.4	3.7	228.7	3.2	123.4	2.9
Jun	354.5	4.3	267.3	3.7	153.0	3.6
Jul	321.0	3.9	232.4	3.2	141.8	3.4
Aug	305.5	3.7	216.6	3.0	100.5	2.4
Sep	449.8	5.5	369.2	5.2	241.1	5.7
Oct	370.1	4.5	357.6	5.0	199.0	4.7
Nov	895.5	10.9	801.3	11.2	510.5	12.1
Dec	897.7	10.9	748.8	10.5	436.1	10.3
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	8228.5	100.0	7162.1	100.0	4233.2	100.0

Table 13. 2005 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	1.6	0.0	2.4	0.0	0.3	0.0
NH	0.0	0.0	0.2	0.0	0.0	0.0
MA	578.1	7.4	544.3	8.0	191.8	4.8
RI	1327.4	17.0	936.9	13.7	645.4	16.2
CT	203.5	2.6	162.6	2.4	121.3	3.1
NY	818.2	10.5	723.9	10.6	246.5	6.2
NJ	1147.2	14.7	1126.0	16.5	901.8	22.7
DE	2.5	0.0	0.0	0.0	0.0	0.0
MD	151.2	1.9	102.1	1.5	84.7	2.1
VA	1755.0	22.4	1543.3	22.6	875.2	22.0
NC	1841.2	23.5	1570.3	23.0	906.7	22.8
Unknown	0.0	0.0	112.5	1.6	0.0	0.0
Total	7825.8	100.0	6824.4	100.0	3973.7	100.0
Month	mt	%	mt	%	mt	%
Jan	1324.6	16.9	1349.9	19.8	723.8	18.2
Feb	1537.7	19.6	1471.6	21.6	785.2	19.8
Mar	1119.9	14.3	972.9	14.3	523.1	13.2
Apr	572.0	7.3	536.5	7.9	365.4	9.2
May	320.5	4.1	252.2	3.7	153.2	3.9
Jun	333.8	4.3	242.0	3.5	154.4	3.9
Jul	322.4	4.1	233.1	3.4	145.6	3.7
Aug	398.0	5.1	292.8	4.3	185.2	4.7
Sep	384.2	4.9	328.6	4.8	202.0	5.1
Oct	247.9	3.2	209.6	3.1	139.9	3.5
Nov	609.0	7.8	505.8	7.4	307.5	7.7
Dec	656.0	8.4	429.4	6.3	288.4	7.3
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	7825.8	100.0	6824.4	100.0	3973.7	100.0

Table 14. 2006 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	3.0	0.0	2.8	0.1	1.1	0.0
NH	0.0	0.0	0.4	0.0	0.0	0.0
MA	413.0	6.6	324.1	5.8	132.0	4.6
RI	961.6	15.4	748.6	13.4	431.7	15.2
CT	142.3	2.3	113.5	2.0	76.3	2.7
NY	572.2	9.1	541.7	9.7	161.7	5.7
NJ	1064.3	17.0	1118.1	20.0	718.5	25.2
DE	2.0	0.0	0.0	0.0	0.0	0.0
MD	112.4	1.8	73.7	1.3	32.6	1.1
VA	1210.7	19.3	1110.8	19.9	451.5	15.9
NC	1780.8	28.4	1546.8	27.7	841.9	29.6
Unknown	0.0	0.0	6.2	0.1	0.0	0.0
Total	6262.2	100.0	5586.7	100.0	2847.4	100.0
Month	mt	%	mt	%	mt	%
Jan	1090.0	17.4	1136.9	20.3	632.9	22.2
Feb	1165.9	18.6	1123.0	20.1	620.4	21.8
Mar	943.2	15.1	872.0	15.6	511.4	18.0
Apr	343.3	5.5	348.0	6.2	211.2	7.4
May	239.4	3.8	178.8	3.2	105.5	3.7
Jun	239.7	3.8	163.1	2.9	94.1	3.3
Jul	260.1	4.2	181.1	3.2	110.1	3.9
Aug	353.8	5.6	243.4	4.4	137.3	4.8
Sep	277.0	4.4	248.0	4.4	153.1	5.4
Oct	302.1	4.8	302.5	5.4	128.6	4.5
Nov	563.6	9.0	457.3	8.2	54.6	1.9
Dec	484.2	7.7	332.8	6.0	88.5	3.1
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	6262.2	100.0	5586.7	100.0	2847.4	100.0

Table 15. 2007 Summer flounder landings (mt, live and percent) from the Dealer Report data, Vessel Trip Report data, and the matched set, by state and month of landing (proration strata).

State	Dealer Report		Vessel Trip Report		Matched Set	
	mt	%	mt	%	mt	%
ME	1.3	0.0	1.0	0.0	0.9	0.0
NH	0.0	0.0	0.1	0.0	0.0	0.0
MA	299.5	6.7	185.7	4.6	79.1	3.4
RI	687.4	15.3	545.5	13.4	369.1	15.7
CT	93.7	2.1	66.0	1.6	43.6	1.9
NY	426.0	9.5	437.4	10.7	125.7	5.3
NJ	770.0	17.2	784.4	19.2	601.3	25.6
DE	1.5	0.0	0.0	0.0	0.0	0.0
MD	80.5	1.8	73.5	1.8	55.9	2.4
VA	918.5	20.5	817.3	20.0	487.3	20.7
NC	1210.8	27.0	1164.8	28.6	589.1	25.0
Unknown	0.0	0.0	2.6	0.1	0.0	0.0
Total	4489.1	100.0	4078.2	100.0	2352.0	100.0
Month	mt	%	mt	%	mt	%
Jan	1074.9	23.9	994.8	24.4	562.3	23.9
Feb	791.8	17.6	794.1	19.5	368.8	15.7
Mar	599.9	13.4	572.7	14.0	347.6	14.8
Apr	301.2	6.7	297.0	7.3	206.2	8.8
May	235.2	5.2	183.7	4.5	106.5	4.5
Jun	217.2	4.8	142.7	3.5	76.8	3.3
Jul	327.3	7.3	204.4	5.0	124.8	5.3
Aug	110.6	2.5	80.2	2.0	35.0	1.5
Sep	288.1	6.4	279.1	6.8	176.2	7.5
Oct	164.2	3.7	162.0	4.0	100.6	4.3
Nov	223.0	5.0	216.3	5.3	161.4	6.9
Dec	155.7	3.5	151.3	3.7	85.7	3.6
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Total	4489.1	100.0	4078.2	100.0	2352.0	100.0

Table 16. Distribution of Northeast Region (ME-VA) commercial fishery landings by statistical area.

Area	1992	1993	1994	1995	1996	1997	1998	1999
511	0	0	0	0	1	0	0	0
512	0	0	0	0	1	1	0	0
513	0	3	0	0	2	0	0	2
514	9	11	10	12	3	15	17	11
515	0	0	0	0	0	0	0	0
521	8	3	14	4	16	2	9	2
522	8	8	7	6	13	6	2	3
561	2	1	0	0	1	1	3	2
562	6	4	5	10	1	1	0	3
525	22	35	26	85	140	16	27	28
526	294	242	193	128	45	22	33	17
533	0	0	0	0	6	2	3	5
537	916	557	707	770	553	449	417	354
538	228	255	341	332	273	270	229	275
539	217	157	223	258	248	284	373	418
611	117	35	181	283	170	141	204	230
612	404	393	169	221	353	297	316	403
613	237	167	280	242	188	194	128	171
614	81	97	141	129	18	41	41	13
615	61	15	49	99	20	37	41	44
616	532	476	743	730	474	245	280	122
621	1028	526	258	279	325	266	286	304
622	299	363	323	522	264	53	141	301
623	0	6	0	14	28	0	1	0
625	289	227	122	118	282	227	142	91
626	743	601	821	347	395	94	502	415
631	655	98	219	220	21	174	258	140
632	160	77	60	43	75	30	41	79
635	45	45	77	55	29	418	228	97
636	0	0	0	4	2	27	8	20
Total	6361	4402	4969	4911	3947	3313	3730	3550

Table 16 continued.

Area	2000	2001	2002	2003	2004	2005	2006	2007
511	1	0	0	0	1	0	0	0
512	1	0	0	0	3	0	1	3
513	0	1	0	1	1	5	1	0
514	2	1	2	2	3	14	4	3
515	0	0	3	1	2	0	0	0
521	4	15	31	12	11	12	3	4
522	6	5	12	10	18	10	14	3
561	4	7	8	1	0	1	1	0
562	8	3	24	9	5	11	3	4
525	41	29	43	32	67	93	38	40
526	16	23	23	17	36	75	25	20
533	10	2	1	2	6	6	4	6
537	326	337	446	451	875	860	635	475
538	260	214	257	275	290	223	255	203
539	455	432	543	551	500	455	386	276
611	142	155	206	217	317	389	369	299
612	308	379	613	606	685	611	603	422
613	170	162	241	240	319	284	304	191
614	3	11	26	25	30	48	12	33
615	70	115	90	63	87	68	126	94
616	384	247	218	359	600	722	524	574
621	208	274	533	303	397	270	285	179
622	101	234	153	394	614	424	360	34
623	8	18	3	14	28	74	22	3
625	60	129	296	261	156	326	123	121
626	697	510	648	763	899	880	331	197
631	185	142	189	119	13	68	13	70
632	39	41	8	82	39	54	31	12
635	54	212	99	21	9	1	8	12
636	1	7	5	4	27	1	0	0
Total	3564	3705	4723	4835	6036	5985	4481	3278

Table 17. Summary of sampling of the commercial fishery for summer flounder, ME-VA.

Year	Lengths	Ages	NER Landings (MT)	Sampling Intensity (mt/100 lengths)
1982	8,194	2,288	7,536	92
1983	6,893	1,347	10,202	148
1984	5,340	1,794	11,455	215
1985	6,473	1,611	10,767	166
1986	7,840	1,967	9,499	121
1987	6,605	1,788	9,945	151
1988	9,048	2,302	11,615	128
1989	8,411	1,325	6,217	74
1990	3,419	853	2,962	87
1991	4,627	1,089	4,626	100
1992	3,385	899	6,361	188
1993	3,638	844	4,402	121
1994	3,950	956	4,969	126
1995	2,982	682	4,911	165
1996	4,580	1,235	3,947	86
1997	8,855	2,332	3,313	37
1998	10,055	2,641	3,730	37
1999	10,460	3,244	3,550	34
2000	10,952	3,307	3,564	33
2001	10,310	2,838	3,705	36
2002	7,422	1,870	4,723	64
2003	8,687	2,210	4,835	56
2004	13,970	3,560	6,036	43
2005	17,188	4,903	5,985	35
2006	18,118	5,062	4,481	25
2007	19,581	6,247	3,278	17

Table 18. Distribution of 1994 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,323 mt; 26.7% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	2 188	1 100	1 76	2 127	6 491
61			2 192		2 192
62	1 100			2 200	3 300
63					
Total	3 288	1 100	3 268	4 327	11 983

MC = Medium, 1212 Landings = 2,212 mt; 44.5% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		1 122	1 87		2 209
52					
53	3 300	3 310	3 323	3 298	12 1,231
61			2 200	1 96	3 296
62	1 100	1 100		2 200	4 400
63					
Total	4 400	5 532	6 610	6 594	21 2,136

Table 18 continued.

MC = Small, 1214 Landings = 511 mt; 10.3% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		1 103			1 103
52					
53					
61			1 56		1 56
62	1 50	1 50		2 152	4 252
63					
Total	1 50	2 153	1 56	2 152	6 411

MC = Jumbo, 1218 Landings = 315 mt; 6.3% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	1 36		1 22	1 57	3 115
61					
62			1 18	1 100	1 118
63					
Total	1 36		2 40	2 157	5 233

Table 18 continued.

MC = Unclassified, 1219 Landings = 608 mt; 12.2% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61		1 46		1 36	2 82
62			2 105		2 105
63				1 36	1 36
Total		1 46	2 105	1 36	4 187

Table 19. Distribution of 1995 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,800 mt; 36.7% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	2 201	1 88			3 289
61	1 105	2 133		1 39	4 277
62	2 201		1 100	1 100	4 401
63					
Total	5 507	3 221	1 100	2 139	11 967

MC = Medium, 1212 Landings = 1,988 mt; 40.5% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		2 110			2 110
52					
53	3 285	4 353			7 638
61	1 98	1 100		1 69	3 267
62	2 201		1 100	1 100	4 401
63					
Total	6 584	7 563	1 100	2 169	16 1,416

Table 19 continued.

MC = Small, 1214 Landings = 345 mt; 7.0% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61		1 44			1 44
62	2 150		1 50	1 50	4 250
63					
Total	2 150	1 44	1 50	1 50	5 294

MC = Jumbo, 1218 Landings = 370 mt; 7.5% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61					
62	2 187				2 187
63					
Total	2 187				2 187

Table 19 continued.

MC = Unclassified, 1219 Landings = 408 mt; 8.3% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61		1 62			1 62
62			1 56		1 56
63					
Total		1 62	1 56		2 118

Table 20. Distribution of 1996 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,151 mt; 29.2% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 20	3 240			5 260
53	1 78		1 100		2 178
61	3 167	4 409			7 576
62			3 300		3 300
63					
Total	6 265	7 649	4 400		17 1314

MC = Medium, 1212 Landings = 1,649 mt; 41.8% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 62	2 200			3 262
53	1 146		1 100	2 204	4 450
61	2 175	4 401	2 156		8 732
62			2 200	2 187	4 387
63				1 83	1 83
Total	4 383	6 601	5 456	5 474	20 1914

Table 20 continued.

MC = Small, 1214 Landings = 420 mt; 10.6% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52		2 105			2 105
53					
61	1 50	3 181	1 50		5 281
62			3 150	1 50	4 200
63					
Total	1 50	5 286	4 200	1 50	11 586

MC = Jumbo, 1218 Landings = 366 mt; 9.3% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 25	2 201			4 226
53			2 131		2 131
61	1 100	3 132			4 232
62			1 100		1 100
63					
Total	3 125	5 333	3 231		11 689

Table 20 continued.

MC = Unclassified, 1219 Landings = 361 mt; 9.1% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61		1 32	1 45		2 77
62					
63					
Total		1 32	1 45		2 77

Table 21. Distribution of 1997 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,125 mt; 34.0% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51			1 12		1 12
52					
53	3 331				3 331
61	3 300	5 454	5 435		13 1189
62	4 400	3 300	1 100	4 192	12 992
63	1 100				1 100
Total	11 1131	8 754	7 547	4 192	30 2624

MC = Medium, 1212 Landings = 1,305 mt; 39.4% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		1 117	2 199		3 316
52			1 116		1 116
53	3 305	3 325	2 214		8 844
61	6 628	7 651	6 499		19 1778
62	6 601	4 343	3 182	1 43	14 1169
63	4 400				4 400
Total	19 1934	15 1436	14 1210	1 43	49 4623

Table 21 continued.

MC = Small, 1214 Landings = 86 mt; 2.6% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61	1 50				1 50
62	1 100				1 100
63	1 50				1 50
Total	3 200				3 200

MC = Jumbo, 1218 Landings = 398 mt; 12.0% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52		1 41			1 41
53	2 196	1 100			3 296
61	7 495	1 28			8 523
62	1 100	1 10	1 10	2 110	5 230
63	1 72				1 72
Total	11 863	4 179	1 10	2 110	18 1162

Table 21 continued.

MC = Unclassified, 1219 Landings = 399 mt; 12.1% of NER Total
 Quarter

DIV	1	2	3	4	Total
51					
52					
53		1 101			1 101
61	1 106			1 39	2 145
62					
63					
Total	1 106	1 101		1 39	3 246

Table 22. Distribution of 1998 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,577 mt; 42.3% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		1 30	2 109		2 139
52					
53	1 100				1 100
61	9 791	4 403	9 913		22 2107
62	4 400	2 146	3 91	4 347	13 984
63	1 100			4 402	5 502
Total	15 1391	7 579	14 1113	8 749	43 3832

MC = Medium, 1212 (1,447 mt) plus Small, 1214 (5 mt); Landings = 1,452 mt, 38.9% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51		1 104	4 302		5 406
52		1 72			1 72
53	1 98	2 204			3 302
61	8 809	4 408	8 710	1 102	21 2029
62	5 440	2 166	1 80	4 377	12 1063
63	6 636			6 604	12 1240
Total	20 1983	10 954	13 1092	11 1083	54 5112

Table 22 continued.

MC = Jumbo, 1218 Landings = 372 mt; 10.0% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51	1 124				1 124
52					
53	1 47				1 47
61			3 37		3 37
62	2 200			1 100	3 300
63				4 400	4 400
Total	4 371		3 37	5 500	12 908

MC = Unclassified, 1219 Landings = 328 mt; 8.8% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61	2 116	1 87			3 203
62					
63					
Total	2 116	1 87			3 203

Table 23. Distribution of 1999 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,550 mt; 44% of NER Total
Quarter

DIV	1	2	3	4	Total
51					
52					
53	1 101		8 577		9 678
61	5 490	5 508		5 504	15 1502
62	6 364		2 70	7 634	15 1068
63	3 300			5 424	8 724
Total	15 1255	5 508	10 647	17 1562	47 3972

MC = Medium, 1212 (1,212 mt) plus Small, 1214 (8 mt); Landings = 1,220 mt, 34% of NER Total
Quarter

DIV	1	2	3	4	Total
51					
52					
53	3 416		2 202		5 618
61	9 902	6 613		5 503	20 2018
62	9 619	4 203	8 325	12 843	33 1990
63	4 363			3 298	7 661
Total	25 2300	10 816	10 527	20 1644	65 5287

Table 23 continued.

MC = Jumbo, 1218 Landings = 501 mt; 14% of NER Total
Quarter

DIV	1	2	3	4	Total
51					
52					
53			1 37		1 37
61	3 174	1 26			4 200
62	1 59			3 229	4 288
63				6 368	6 368
Total	4 233	1 26	1 37	9 597	15 893

MC = Unclassified, 1219 Landings = 279 mt; 8% of NER Total
Quarter

DIV	1	2	3	4	Total
51					
52					
53		3 246	1 62		4 308
61					
62					
63					
Total		3 246	1 62		4 308

Table 24. Distribution of 2000 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured. Samples include data collected by the NEFSC (119 samples, 9,513 fish), the VMRC (65 samples, 1,091 fish), and MADMF (5 samples, 348 fish)

MC = Large, 1210 Landings = 1,485 mt; 42% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	5 619				5 619
61	13 1226		4 380		17 1606
62	5 284	3 72	4 94	6 444	21 894
63	5 497	6 274	6 84	7 66	24 921
Total	28 2626	9 346	14 558	13 510	64 4040

MC = Medium, 1212 (1,258 mt) plus Small, 1214 (7 mt); Landings = 1,265 mt, 35% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 144				1 144
53	2 226		1 83	1 102	4 411
61	14 1365		6 593		20 1958
62	7 573	6 228	4 161	5 435	22 1397
63	3 227	6 66	13 91	8 123	30 507
Total	27 2535	12 294	24 928	14 660	77 4417

Table 24 continued.

MC = Jumbo, 1218 Landings = 641 mt; 18% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 104				1 104
53	3 207				3 207
61	5 357				5 357
62	3 139			6 471	9 610
63	4 255	2 181		2 19	8 455
Total	16 1062	2 181		8 490	26 1733

MC = Unclassified, 1219 Landings = 173 mt; 5% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53		1 41	5 352		6 393
61	1 100				1 100
62					
63	3 31	6 176	4 42	2 20	15 269
Total	4 131	7 217	9 394	2 20	22 762

Table 25. Distribution of 2001 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured. Samples include data collected by the NEFSC (118 samples, 9,521 fish), the VMRC (1 sample, 63 fish), and MADMF (6 samples, 726 fish)

MC = Large, 1210 Landings = 1,515 mt; 41% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	4 291		1 20		5 311
53	1 102	1 49	3 74	2 142	7 367
61	10 902				10 902
62	8 839	5 289	6 458	5 500	24 1986
63	5 504				5 504
Total	28 2538	6 338	10 552	7 642	51 4070

MC = Medium, 1212 (1,183 mt) plus Small, 1214 (10 mt); Landings = 1,193mt, 32% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 235				2 235
53	1 105		2 116	1 95	4 316
61	8 684				8 684
62	9 770	8 675	5 427	4 403	26 2275
63	3 304				3 304
Total	23 2098	8 675	7 543	5 498	43 3814

Table 25 continued.

MC = Jumbo, 1218 Landings = 690 mt; 19% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 26		6 250		8 276
53		1 104			1 104
61	3 248				3 248
62	4 372	1 46	1 74	2 201	8 693
63	2 189	1 100			3 289
Total	11 835	3 250	7 324	2 201	23 1610

MC = Unclassified, 1219 Landings = 308 mt; 8% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53		6 726			6 726
61	1 27				1 27
62		1 63			1 63
63					
Total	1 27	7 789			8 816

Table 26. Distribution of 2002 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured. Samples include data collected by the NEFSC (94 samples, 7,199 fish), and the MADMF (12 samples, 223 fish)

MC = Large, 1210 Landings = 1,911 mt; 40% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	3 270				3 270
53	4 227		5 134		9 361
61	3 211	2 127	4 400	1 95	10 833
62	6 461	4 264		4 403	14 1128
63	3 301	1 100			4 401
Total	19 1470	7 491	9 534	5 498	40 2993

MC = Medium, 1212 (1,570 mt) plus Small, 1214 (16 mt); Landings = 1,586 mt, 34% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	3 341	3 175	4 100		10 616
61	1 102	2 168	3 268	1 100	7 638
62	7 701	3 170		2 200	12 1071
63	4 401	1 101			5 502
Total	15 1545	9 614	4 368	3 300	34 2827

Table 26 continued.

MC = Jumbo, 1218 Landings = 811 mt; 17% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 31				1 31
53	3 176	1 41	5 61		9 278
61	4 164	3 77	1 65		8 306
62	4 377	1 21	1 25	3 303	9 726
63	1 85	1 28			2 113
Total	13 833	6 167	7 151	3 303	29 1454

MC = Unclassified, 1219 Landings = 416 mt; 9% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61			3 148		3 148
62					
63					
Total			3 148		3 148

Table 27. Distribution of 2003 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured. Samples include data collected by the NEFSC (136 samples, 8,505 fish), and the VAMRC (1 sample, 65 fish)

MC = Large, 1210 Landings = 2,089 mt; 43% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51			1 65		1 65
52	2 76			1 65	3 141
53	1 102		8 147	2 52	11 301
61	3 248	5 303	4 307	2 227	14 1085
62	6 550	2 35		5 483	13 1068
63	3 300				3 300
Total	15 1276	6 322	13 519	10 827	44 2961

MC = Medium, 1212 (1,579 mt) plus Small, 1214 (4 mt); Landings = 1,583 mt, 33% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51	1 16				1 16
52	1 26	1 37		1 54	3 117
53	2 188	3 220	7 128	2 188	14 724
61	3 268	5 427	4 407	2 137	14 1239
62	10 926	1 13		3 224	14 1163
63	2 200				2 200
Total	19 1624	9 684	11 535	7 580	48 3461

Table 27 continued.

MC = Jumbo, 1218 Landings = 939 mt; 19% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 130		2 62		4 192
53	3 148		1 49		4 197
61	4 210	3 97	1 40	1 44	9 391
62	4 400			2 124	6 524
63	2 201				2 201
Total	15 1089	3 97	4 151	2 168	25 1505

MC = Unclassified, 1219 Landings = 225 mt; 5% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53			1 25		1 25
61		6 215	13 372	2 83	21 670
62					
63				1 65	1 65
Total		6 215	14 397	3 148	23 760

Table 28. Distribution of 2004 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured. Samples include data collected by the NEFSC (199 samples; 13,894 fish), and the VAMRC (3 samples; 76 fish)

MC = Large, 1210 Landings = 2,720 mt; 45% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 38	1 35	1 32		3 105
53	6 627	1 119	2 45	3 257	12 1048
61	13 1213	13 860	9 466	1 102	36 2640
62	7 684			6 594	13 1278
63	3 19			1 100	4 119
Total	27 2581	15 1014	12 543	11 1052	65 5190

MC = Medium, 1212 (1,804 mt) plus Small, 1214 (9 mt); Landings = 1,813 mt, 30% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 169				2 169
53	2 197	5 190	3 207		10 594
61	11 1249	9 627	6 418	3 279	29 2514
62	7 703	1 95	2 207	8 785	18 1790
63	3 34			1 101	4 135
Total	25 2352	15 853	11 832	12 1165	63 5202

Table 28 continued.

MC = Jumbo, 1218 Landings = 1,066 mt; 18% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52			3 91		3 91
53	6 451	3 83		7 368	16 902
61	5 366	6 67	3 99	2 114	16 646
62	3 222			3 302	6 524
63	3 23				3 23
Total	17 1062	9 150	6 190	12 784	44 2186

MC = Unclassified, 1219 Landings = 437 mt; 7% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61	1	16 215	13 372	1 83	31 670
62				1	
63					
Total	1 22	16 676	13 511	2 124	32 1333

Table 29. Distribution of 2005 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 2,606 mt; 44% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52		1 50	2 110	3 198	6 358
53	6 349	1 38		6 334	13 721
61	8 474	9 246	29 1691	10 794	56 3205
62	7 651	2 200	1 64	9 882	19 1797
63		1 100		1 100	2 200
Total	21 1474	14 634	32 1865	29 2308	96 6281

MC = Medium, 1212 (1,850 mt) plus Small, 1214 (20 mt); Landings = 1,870 mt, 31% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	2 244		2 3	2 105	6 352
53	2 156	2 149	1 35	3 210	8 550
61	7 608	14 688	24 1698	9 802	54 3796
62	12 1222	3 300	2 310	11 1807	29 2919
63		1 100		1 100	2 200
Total	23 2230	20 1237	30 2046	26 2304	99 7817

Table 29 continued.

MC = Jumbo, 1218 Landings = 999 mt; 17% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 49		2 32	3 104	6 185
53	4 369	2 88	1 27	6 170	13 654
61	3 201	6 64	17 645	4 177	30 1087
62	4 400	1 32		1 93	6 525
63					
Total	17 1019	9 184	6 704	12 544	44 2457

MC = Unclassified, 1219 Landings = 510 mt; 9% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	2 146		1 53		3 199
61		4 136	6 176	1 28	11 340
62			1 100		1 100
63					
Total	2 146	4 136	8 329	1 28	15 639

Table 30. Distribution of 2006 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 2,016 mt; 45% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 114	5 87	1 41		7 242
53	6 532	2 37		2 107	10 676
61	13 1094	7 461	12 617	12 1035	44 3207
62	7 666		2 193	13 1276	22 2135
63	1 100	2 200			3 300
Total	28 2506	16 785	15 851	27 2418	86 6560

MC = Medium, 1212 (1,511 mt) plus Small, 1214 (4 mt); Landings = 1,515 mt, 34% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53	5 466	2 145		3 165	10 776
61	15 1354	12 780	13 934	8 823	48 3891
62	8 795	2 205	8 797	10 935	28 2732
63		1 100			1 200
Total	28 2615	17 1230	21 1731	21 1923	87 7499

Table 30 continued.

MC = Jumbo, 1218 Landings = 748 mt; 17% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52		3 37	3 83		6 120
53	4 192			2 54	6 246
61	4 328	5 107	5 38	6 306	20 779
62	2 155	1 100	2 123	6 388	11 766
63					
Total	10 675	9 244	10 244	14 748	43 1911

MC = Unclassified, 1219 Landings = 202 mt; 4% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52					
53					
61	1 10	3 103	8 213	1 23	13 349
62				1 101	1 101
63	1 407	1 119		2 1,115	4 1,681
Total	2 417	4 222	8 213	4 1,279	18 2,131

Table 31. Distribution of 2007 NER commercial fishery length frequency samples. Two digit divisions (DIV) defined as: 51 = 511 to 515, 52 = 521 to 562, 53 = 533 to 539, 61 = 611 to 616, 62 = 621 to 629, 63 = 631 to 639. MC = landings market category defined as: 1210 = large, 1212 = medium, 1214 = small, 1218 = jumbo, 1219 = unclassified. Top entry in each table cell is the number of samples, bottom entry is the number of fish measured.

MC = Large, 1210 Landings = 1,604 mt; 49% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	3 147	2 116	2 105	1 44	8 412
53	7 257	2 202	1 11	12 636	22 1106
61	27 2162	18 944	40 2340	2 39	87 5485
62	5 428	3 206	7 661	4 397	19 1692
63	3 304				3 304
Total	45 3298	25 1468	50 3117	19 1116	139 8999

MC = Medium, 1212 (935 mt) plus Small, 1214/1215 (4 mt); Landings = 939 mt, 29% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	4 65	1 4	2 19		7 88
53	4 294	1 100		3 184	8 578
61	19 1680	14 921	26 2011	2 89	61 4701
62	5 511	6 534	4 394	4 406	19 1845
63	2 211				2 211
Total	34 2761	22 1559	32 2424	9 679	97 7423

Table 31 continued.

MC = Jumbo, 1218 Landings = 527 mt; 16% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	4 113	4 63	8 155	2 19	18 350
53	2 35	1 10	3 93	8 170	14 308
61	5 388	8 90	11 114	5 64	29 656
62			2 102	4 315	6 417
63					
Total	11 536	13 163	24 464	19 568	67 1731

MC = Unclassified, 1219 Landings = 219 mt; 6% of NER Total

DIV	Quarter				Total
	1	2	3	4	
51					
52	1 36				1 36
53					
61	1 50	14 466	25 667	4 109	44 1292
62	1 2016	2 712	1 91	1 780	5 3599
63					
Total	3 2102	16 1178	26 758	5 889	50 4927

Table 32. Commercial landings at age of summer flounder ('000), ME-VA. Does not include discards, assumes catch not sampled by NEFSC has same biological characteristics as port sampled catch.

Year	Age										Total
	0	1	2	3	4	5	6	7	8	9+	
1982	1,441	6,879	5,630	232	61	97	57	22	2	0	14,421
1983	1,956	12,119	4,352	554	30	62	13	17	4	2	19,109
1984	1,403	10,706	6,734	1,618	575	72	3	5	1	4	21,121
1985	840	6,441	10,068	956	263	169	25	4	2	1	18,769
1986	407	7,041	6,374	2,215	158	93	29	7	2	0	16,326
1987	332	8,908	7,456	935	337	23	24	27	11	0	18,053
1988	305	11,116	8,992	1,280	327	79	18	9	5	0	22,131
1989	96	2,491	4,829	841	152	16	3	1	1	0	8,430
1990	0	2,670	861	459	81	18	6	1	1	0	4,097
1991	0	3,755	3,256	142	61	11	1	1	0	0	7,227
1992	114	5,760	3,575	338	19	22	0	1	0	0	9,829
1993	151	4,308	2,340	174	29	43	19	2	1	0	7,067
1994	119	3,698	3,692	272	64	12	6	0	5	0	7,868
1995	46	2,566	4,280	241	40	8	2	1	0	0	7,184
1996	0	1,401	3,187	798	156	15	3	0	1	0	5,561
1997	0	380	2,442	1,214	261	69	10	4	0	0	4,380
1998	0	196	1,719	2,022	437	72	15	1	0	0	4,462
1999	0	123	1,570	1,522	585	160	26	8	0	0	3,994
2000	0	212	1,934	1,083	449	119	47	15	6	2	3,867
2001	0	706	1,402	1,000	331	155	59	16	4	3	3,676
2002	0	406	2,706	1,375	383	133	75	9	0	1	5,088
2003	0	470	2,112	1,353	532	255	110	39	17	3	4,891
2004	0	287	2,609	1,765	748	301	120	58	32	10	5,930
2005	0	506	1,373	1,629	1,091	675	364	182	127	62	6,009
2006	0	375	2,221	1,110	578	276	132	49	19	4	4,764
2007	0	160	762	1,449	485	225	115	43	16	10	3,265

Table 33. Mean weight (kg) at age of summer flounder landed in the commercial fishery, ME-VA.

	Age										ALL
	0	1	2	3	4	5	6	7	8	9+	
1982	0.260	0.420	0.620	1.840	2.330	2.940	2.710	4.040	5.990	0.000	0.545
1983	0.310	0.460	0.800	1.400	2.350	1.850	2.760	3.300	4.170	4.370	0.562
1984	0.280	0.390	0.600	1.090	1.430	2.160	3.210	3.620	4.640	4.030	0.540
1985	0.330	0.440	0.590	1.080	1.730	2.220	2.590	4.710	4.780	4.800	0.587
1986	0.300	0.440	0.630	1.110	1.760	1.890	3.140	2.960	4.810	0.000	0.629
1987	0.270	0.450	0.620	1.060	2.000	2.850	3.080	3.020	4.140	0.000	0.590
1988	0.360	0.460	0.600	1.210	2.070	2.880	3.980	3.910	4.500	0.000	0.596
1989	0.357	0.554	0.738	1.062	1.833	2.466	3.568	3.592	2.251	0.000	0.736
1990	0.000	0.518	0.857	1.374	1.835	2.134	3.212	3.915	5.029	0.000	0.724
1991	0.000	0.482	0.748	1.538	2.257	3.012	3.908	3.873	0.000	0.000	0.642
1992	0.340	0.500	0.820	1.880	2.680	3.090	0.000	4.590	0.000	0.000	0.673
1993	0.354	0.488	0.751	1.625	2.099	1.786	2.810	4.136	5.199	0.000	0.623
1994	0.389	0.552	0.616	1.426	2.266	3.083	3.323	0.000	3.703	0.000	0.632
1995	0.328	0.542	0.704	1.532	2.373	2.916	3.500	4.094	0.000	0.000	0.684
1996	0.000	0.544	0.577	1.137	1.881	2.845	3.776	0.000	4.762	0.000	0.694
1997	0.000	0.544	0.637	0.842	1.310	2.101	2.559	3.429	0.000	0.000	0.756
1998	0.000	0.550	0.643	0.845	1.386	2.307	2.524	3.983	0.000	0.000	0.837
1999	0.000	0.523	0.615	0.862	1.359	1.928	2.838	3.618	0.000	0.000	0.889
2000	0.000	0.566	0.676	0.972	1.459	2.125	2.514	2.600	3.303	3.530	0.923
2001	0.000	0.588	0.762	1.031	1.721	2.376	2.847	3.566	3.898	4.940	1.008
2002	0.000	0.596	0.711	1.006	1.652	2.162	2.845	3.601	3.357	2.983	0.928
2003	0.000	0.611	0.705	0.998	1.414	1.890	2.528	3.181	3.535	4.032	0.988
2004	0.000	0.555	0.716	0.995	1.427	1.914	2.488	2.984	3.138	3.874	1.018
2005	0.000	0.556	0.627	0.793	1.056	1.385	1.692	1.989	2.274	3.210	0.996
2006	0.000	0.580	0.651	0.935	1.319	1.788	2.333	2.828	3.253	3.791	0.940
2007	0.000	0.559	0.683	0.866	1.202	1.696	2.256	2.424	2.724	3.700	1.004

Table 34. Summary of North Carolina Division of Marine Fisheries (NCDMF) sampling of the commercial winter trawl fishery for summer flounder.

Year	Lengths	Ages	Total Landings (MT)	Total MT per 100 lengths
1982	5,403	0	2,864	53
1983	8,491	0	3,201	38
1984	14,920	0	5,674	38
1985	13,787	0	3,907	28
1986	15,754	0	2,687	17
1987	12,126	0	2,326	19
1988	13,377	189	3,071	23
1989	15,785	106	1,908	12
1990	15,787	191	1,237	8
1991	24,590	534	1,595	6
1992	14,321	364	1,168	8
1993	18,019	442	1,313	7
1994	21,858	548	1,620	7
1995	18,410	548	2,066	11
1996	17,745	477	1,913	11
1997	12,802	388	681	5
1998	21,477	476	1,346	6
1999	11,703	412	1,271	11
2000	24,177	568	1,521	6
2001	19,655	499	1,265	6
2002	21,653	609	1,841	8
2003	17,476	610	1,615	9
2004	20,436	553	2,182	11
2005	20,598	620	1,827	9
2006	20,911	682	1,781	9
2007	26,187	697	1,211	5

Table 35. Number ('000) of summer flounder at age landed in the North Carolina commercial winter trawl fishery. The 1982-1987 NCDMF length samples were aged using NEFSC age-lengths keys for comparable times and areas (i.e., same quarter and statistical areas). Since 1987, the NCDMF length samples have been aged using NCDMF age-lengths keys.

Year	Age									Total
	0	1	2	3	4	5	6	7	8+	
1982	981	3,463	1,021	142	52	19	6	4	2	5,690
1983	492	3,778	1,581	287	135	41	3	3	<1	6,321
1984	907	5,658	3,889	550	107	18	<1	0	0	11,130
1985	196	2,974	3,529	338	85	24	5	<1	0	7,152
1986	216	2,478	1,897	479	29	32	1	1	<1	5,134
1987	233	2,420	1,299	265	28	1	0	0	0	4,243
1988	0	2,917	2,225	471	227	39	1	6	<1	5,887
1989	2	49	1,437	716	185	37	1	2	0	2,429
1990	2	142	730	418	117	12	1	<1	0	1,424
1991	0	382	1,641	521	116	20	2	<1	0	2,682
1992	0	36	795	697	131	21	2	<1	0	1,682
1993	0	515	1,101	252	44	1	<1	0	0	1,913
1994	6	258	1,262	503	115	14	3	<1	0	2,161
1995	<1	181	1,391	859	331	53	2	<1	0	2,817
1996	0	580	2,187	554	132	56	13	<1	2	3,526
1997	0	17	625	378	18	3	<1	0	0	1,041
1998	18	548	694	230	28	3	<1	0	0	1,520
1999	1	70	504	579	152	88	6	3	<1	1,403
2000	0	50	398	906	345	55	18	1	2	1,775
2001	0	79	408	556	334	63	18	5	<1	1,463
2002	0	79	574	1,032	460	70	30	3	<1	2,248
2003	0	43	336	712	362	124	50	8	<1	1,635
2004	0	24	608	863	449	238	57	22	2	2,263
2005	0	17	471	832	389	143	44	14	3	1,913
2006	0	18	436	658	447	258	95	26	9	1,947
2007	0	12	120	581	345	135	54	25	14	1,286

Table 36. Mean weight (kg) at age of summer flounder landed in the North Carolina commercial winter trawl fishery.

	Age									
	0	1	2	3	4	5	6	7	8+	ALL
1982	0.340	0.456	0.756	1.284	1.658	2.054	2.116	2.231	2.577	0.531
1983	0.319	0.452	0.746	1.140	1.262	1.488	1.729	2.428	2.696	0.572
1984	0.331	0.475	0.704	1.059	1.504	2.167	3.482	0.000	0.000	0.585
1985	0.377	0.460	0.664	1.203	1.675	2.485	3.073	4.571	0.000	0.617
1986	0.360	0.512	0.674	1.092	1.623	1.955	3.398	3.233	3.626	0.636
1987	0.334	0.512	0.655	1.086	1.878	2.944	0.000	0.000	0.000	0.590
1988	0.000	0.411	0.598	0.926	1.189	1.702	2.241	2.982	3.412	0.565
1989	0.118	0.380	0.603	0.988	1.161	2.095	3.086	2.496	0.000	0.779
1990	0.079	0.483	0.664	0.867	1.306	2.095	1.897	3.972	0.000	0.773
1991	0.000	0.448	0.655	1.072	1.729	2.252	2.508	3.126	4.097	0.767
1992	0.000	0.363	0.504	0.851	1.198	1.457	2.302	0.000	0.000	0.713
1993	0.000	0.489	0.608	1.128	1.371	2.946	3.406	0.000	0.000	0.663
1994	0.272	0.451	0.618	1.270	2.039	2.443	2.888	5.780	0.000	1.414
1995	0.038	0.210	0.461	0.853	1.474	2.492	3.792	3.815	0.000	1.299
1996	0.000	0.420	0.470	0.730	1.350	1.720	2.290	3.200	2.860	0.564
1997	0.000	0.407	0.616	0.760	1.323	2.069	3.248	0.000	0.000	0.682
1998	0.405	0.714	0.890	1.237	1.491	2.802	3.381	0.000	0.000	0.889
1999	0.144	0.578	0.729	0.919	1.402	1.682	2.609	3.063	3.904	0.945
2000	0.000	0.558	0.656	0.801	1.201	1.963	2.590	3.307	3.521	0.898
2001	0.000	0.594	0.674	0.758	1.065	1.716	2.388	3.067	4.240	0.865
2002	0.000	0.520	0.650	0.760	0.990	1.650	2.200	3.030	4.420	0.821
2003	0.000	0.460	0.700	0.890	1.550	2.480	3.250	3.870	4.820	1.194
2004	0.000	0.510	0.640	0.820	1.120	1.410	2.140	2.990	3.980	0.948
2005	0.000	0.580	0.670	0.870	1.150	1.650	2.430	2.900	3.730	0.989
2006	0.000	0.600	0.669	0.815	1.070	1.427	1.842	2.573	3.370	1.004
2007	0.000	0.550	0.680	0.780	1.010	1.420	1.730	2.160	2.760	0.986

Table 37. Summary NER Fishery Observer data for trips catching summer flounder. Total trips (trips are not split for multiple areas), observed tows, total summer flounder catch (lb), total summer flounder kept (lb), and total summer flounder discard (lb), and percentage of summer flounder discard (lb) to summer flounder catch (lb).

Year	Gear	Trips	Obs Tows	Total Catch	Total Kept	Total Discard	Discard: Total (%)
1989	All	57	413	53,714	48,406	5,308	9.9
1990	All	61	463	47,954	35,972	11,982	25.0
1991	All	82	635	61,650	50,410	11,240	18.2
1992	Trawl	66	643	136,632	118,026	18,606	13.6
	Scallop	8	178	1,477	767	710	48.1
	All	74	821	138,109	118,793	19,316	14.0
1993	Trawl	37	410	74,982	67,603	7,379	9.8
	Scallop	15	671	2,967	1,158	1,809	61.0
	All	52	1,081	77,949	68,761	9,188	11.8
1994	Trawl	51	574	174,347	163,734	10,612	6.1
	Scallop	14	651	5,811	435	5,376	92.5
	All	65	1,225	180,158	164,169	15,988	8.9
1995	Trawl	134	1,004	242,784	235,011	7,773	3.2
	Scallop	19	1,051	10,044	2,247	7,778	77.4
	All	153	2,055	252,828	237,258	15,551	6.2
1996	Trawl	111	653	101,389	90,789	10,600	10.5
	Scallop	24	1,083	9,575	1,345	8,230	86.0
	All	135	1,736	110,964	92,134	18,830	17.0
1997	Trawl	59	334	31,707	26,475	5,232	16.5
	Scallop	23	835	5,721	583	5,138	89.8
	All	82	1,169	37,428	27,058	10,370	27.7

Table 37 continued.

Year	Gear	Trips	Obs Tows	Total Catch	Total Kept	Total Discard	Discard: Total (%)
1998	Trawl	53	329	72,396	65,507	6,889	9.5
	Scallop	22	359	1,962	652	1,310	66.8
	All	75	688	74,358	66,159	8,199	11.0
1999	Trawl	56	374	60,733	45,987	14,746	24.3
	Scallop	10	247	3,199	458	2,741	85.7
	All	66	621	63,932	46,445	17,487	27.4
2000	Trawl	115	688	162,015	144,752	17,263	10.7
	Scallop	23	608	8,457	501	7,956	94.1
	All	138	1,296	170,472	145,253	25,219	14.8
2001	Trawl	137	605	109,910	61,625	48,295	43.9
	Scallop	68	1,606	11,622	800	10,822	93.1
	All	205	2,211	121,532	62,425	59,117	48.6
2002	Trawl	175	837	141,246	124,053	17,193	12.2
	Scallop	55	2,522	25,871	887	24,984	96.6
	All	230	3,359	167,117	124,940	42,177	25.2
2003	Trawl	212	1,316	235,685	195,371	40,314	17.1
	Scallop	79	3,248	37,021	2,378	34,643	93.6
	All	291	4,564	272,706	197,749	74,957	27.5
2004	Trawl	546	2,570	561,689	477,634	84,055	15.0
	Scallop	132	4,444	59,787	4,016	55,771	93.3
	All	678	7,014	621,476	481,650	139,826	22.5
2005	Trawl	906	5,993	800,082	580,949	219,133	27.4
	Scallop	136	3,786	38,227	2,805	35,422	92.7
	All	1,042	9,779	838,309	583,754	254,555	30.4

Table 37 continued.

Year	Gear	Trips	Obs Tows	Total Catch	Total Kept	Total Discard	Discard: Total (%)
2006	Trawl	578	4,017	566,458	309,915	256,544	45.3
	Scallop	117	1,488	15,687	1,323	14,364	91.6
	All	695	5,505	582,145	311,238	270,908	46.5
2007	Trawl	682	3,972	759,360	332,373	426,987	56.2
	Scallop	233	4,059	58,865	729	56,136	95.4
	All	915	8,031	818,225	333,102	483,123	59.0

Table 38. Summary NER Vessel Trip Report (VTR) data for trips reporting discard of any species and catching summer flounder. Total trips, total summer flounder catch (lb), total summer flounder kept (lb), total summer flounder discard (lb), and percentage of summer flounder discard (lb) to summer flounder catch (lb).

Year	Gear	Trips	Total Catch	Total Kept	Total Discard	Discard: Total (%)
1994	Trawl	4,267	2,149,332	2,015,296	134,036	6.2
	Scallop	85	70,353	22,877	47,476	67.5
	All	4,352	2,219,685	2,038,173	181,512	8.2
1995	Trawl	3,733	2,444,231	2,332,516	111,715	4.6
	Scallop	113	78,758	25,084	53,674	68.2
	All	3,846	2,522,989	2,357,600	165,389	6.6
1996	Trawl	2,990	1,662,313	1,459,155	203,158	12.2
	Scallop	79	69,557	16,657	52,900	76.1
	All	3,069	1,731,870	1,475,812	256,058	14.8
1997	Trawl	3,044	988,599	851,090	137,509	13.9
	Scallop	51	21,553	4,665	16,888	78.4
	All	3,095	1,010,152	855,755	154,397	15.3
1998	Trawl	3,004	1,128,578	868,706	259,872	23.0
	Scallop	62	23,538	10,323	13,215	56.1
	All	3,066	1,152,116	879,029	273,087	23.7
1999	Trawl	2,884	959,275	772,924	186,351	19.4
	Scallop	41	26,334	14,324	12,010	45.6
	All	2,925	985,609	787,248	198,361	20.1
2000	Trawl	3,140	1,048,791	786,576	262,215	25.0
	Scallop	41	12,183	3,798	8,385	68.8
	All	3,181	1,060,974	790,374	270,600	25.5
2001	Trawl	3,035	1,086,331	783,900	307,156	28.3
	Scallop	71	14,662	1,349	13,313	90.8
	All	3,106	1,100,993	785,249	320,469	29.1

Table 38 continued.

Year	Gear	Trips	Total Catch	Total Kept	Total Discard	Discard: Total (%)
2002	Trawl	3,549	1,163,898	924,590	239,448	20.6
	Scallop	107	23,027	6,913	16,966	73.7
	All	3,656	1,186,925	931,503	256,414	21.6
2003	Trawl	3,008	1,481,531	877,458	606,618	40.9
	Scallop	72	15,565	6,028	15,162	97.4
	All	3,080	1,497,096	883,486	621,780	41.5
2004	Trawl	3,607	1,863,192	1,511,013	355,529	19.1
	Scallop	69	20,221	9,478	15,336	75.8
	All	3,676	1,883,413	1,520,491	370,865	19.7
2005	Trawl	2,475	1,869,259	1,542,640	327,662	17.5
	Scallop	55	7,216	5,364	6,041	83.7
	All	2,530	1,876,475	1,548,004	333,703	17.8
2006	Trawl	2,575	1,361,765	974,264	398,806	29.3
	Scallop	144	17,613	3,091	14,522	82.5
	All	2,719	1,379,378	977,355	413,328	30.0
2007	Trawl	2,633	1,242,145	822,298	431,480	34.7
	Scallop	167	25,669	12,379	20,558	80.1
	All	2,800	1,267,814	834,677	452,038	35.7

Table 39. Summary of fishery observer data for summer flounder by NAFO division and quarter for 1989: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	85	0	2	0
	2	1	66	<1	137	9	4	<1
	3	0	0	0	75	0	3	0
	4	1	19	<1	157	3	3	<1
52	1	1	756	48	1319	998	687	64
	2	5	3	8	1250	4	129	10
	3	2	280	<1	536	150	9	<1
	4	1	35	40	1545	54	98	61
53	1	4	588	41	689	405	473	29
	2	10	68	<1	2045	138	224	2
	3	5	260	2	1619	421	298	4
	4	3	91	6	898	82	330	6
61	1	4	544	51	1661	904	528	84
	2	5	107	4	1391	149	165	5
	3	0	213	24	513	109	106	13
	4	5	142	38	575	82	125	22
62	1	5	934	84	1867	1744	1460	158
	2	2	244	101	922	225	85	93
	3	8	213	24	216	46	104	5
	4	1	672	17	1118	752	361	19
63	1	2	1116	110	490	546	323	54
	2	0	244	101	41	10	9	4
	3	0	213	24	40	9	<1	1
	4	0	672	17	616	415	292	10
TOTAL; MEAN (CV%)		65	296 (22.4)	28 (32.7)	19,805	7,255	5,817	642

Table 40. Summary of fishery observer data for summer flounder by NAFO division and quarter for 1990: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	9	0	<1	0
	2	0	0	0	78	0	<1	0
	3	0	0	0	29	0	<1	0
	4	0	0	0	82	0	<1	0
52	1	1	15	5	581	9	148	3
	2	2	12	7	1107	13	31	8
	3	2	14	205	332	5	9	68
	4	3	12	<1	818	10	40	<1
53	1	6	113	3	577	65	129	2
	2	3	50	1	1212	60	51	1
	3	0	92	6	1194	110	187	7
	4	8	92	6	1052	97	288	6
61	1	10	222	40	716	159	84	29
	2	5	14	23	1153	16	22	27
	3	0	91	55	580	53	150	32
	4	3	367	115	535	197	131	62
62	1	4	446	253	2040	911	333	517
	2	9	19	49	558	11	8	27
	3	7	221	74	227	50	126	17
	4	8	360	43	1779	641	368	77
63	1	1	505	321	650	328	258	209
	2	0	19	49	47	1	1	2
	3	0	221	74	0	0	0	0
	4	0	360	43	625	225	384	27
TOTAL; MEAN (CV%)		72	166 (21.3)	56 (31.9)	15,980	2,959	2,749	1,121

Table 41. Summary of fishery observer data for summer flounder by NAFO division and quarter for 1991: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	<1	29	0	<1	0
	2	0	0	<1	79	0	1	0
	3	0	0	<1	43	0	1	0
	4	1	31	<1	188	6	2	<1
52	1	3	218	128	1254	274	79	161
	2	2	88	3	1756	154	44	5
	3	1	13	<1	706	9	17	<1
	4	1	26	<1	1721	44	53	<1
53	1	7	117	9	806	94	242	7
	2	9	55	1	1688	92	147	2
	3	6	92	1	1401	128	279	1
	4	10	163	4	1475	240	259	6
61	1	6	173	49	2763	477	384	134
	2	5	43	37	2983	128	184	111
	3	1	577	1	572	330	260	1
	4	15	187	24	1855	347	225	45
62	1	5	97	9	1981	192	673	19
	2	4	169	143	1203	203	78	172
	3	4	953	177	555	529	236	98
	4	10	249	38	1935	482	602	73
63	1	0	97	9	382	37	231	4
	2	0	169	143	2	<1	<1	<1
	3	0	953	177	19	18	12	3
	4	4	492	212	702	346	346	149
TOTAL; MEAN (CV%)		94	196 (12.5)	42 (30.5)	26,096	4,133	4,355	993

Table 42. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1992: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	39	0	<1	0
	2	0	0	0	80	0	2	0
	3	0	0	0	35	0	1	0
	4	1	17	<1	225	4	5	0
52	1	4	427	26	441	188	107	12
	2	1	85	<1	1476	126	112	1
	3	0	11	<1	397	5	11	0
	4	1	11	<1	622	7	72	0
53	1	13	157	11	823	129	386	9
	2	1	21	<1	1836	38	215	1
	3	1	<1	<1	1603	<1	311	0
	4	7	236	13	1561	368	367	20
61	1	16	313	17	757	237	333	13
	2	2	169	36	1350	228	306	49
	3	1	1009	23	954	961	417	22
	4	5	130	6	558	73	208	3
62	1	13	350	23	1589	556	709	37
	2	3	150	71	657	99	88	47
	3	6	502	164	782	392	724	127
	4	4	606	131	925	561	610	121
63	1	4	420	90	491	206	192	44
	2	0	150	71	34	5	1	2
	3	0	502	164	1	1	<1	0
	4	2	381	7	912	347	597	7
TOTAL; MEAN (CV%)		85	300 (11.8)	38 (32.8)	18148	4532	5776	517

Table 43. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1992: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	3	0	<1	0
	2	0	0	0	5	0	<1	0
	3	0	0	0	2	0	<1	0
	4	0	0	0	20	0	<1	0
52	1	0	232	0	961	223	4	0
	2	3	29	<1	1845	53	6	0
	3	1	22	0	443	10	1	0
	4	0	34	10	1079	36	11	11
53	1	1	232	<1	38	9	<1	0
	2	0	29	<1	6	<1	<1	0
	3	1	37	<1	8	<1	<1	0
	4	0	34	10	294	10	17	3
61	1	1	137	<1	1749	239	33	1
	2	0	11	17	909	10	9	15
	3	0	37	<1	152	6	<1	0
	4	1	34	10	1342	45	56	14
62	1	1	75	129	1000	75	45	129
	2	1	11	17	691	8	7	12
	3	0	37	<1	22	<1	<1	0
	4	0	34	10	1480	50	63	15
63	1	1	93	129	224	21	13	29
	2	0	11	17	281	3	4	5
	3	0	0	0	0	0	0	0
	4	0	34	10	283	10	12	3
TOTAL; MEAN (CV%)		11	47 (28.2)	3 (62.1)	12837	811	290	237

Table 44. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1993: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	77	0	<1	0
	2	0	12	4	58	0	8	0
	3	0	0	0	78	0	3	0
	4	1	<1	55	9	0	<1	0
52	1	4	1018	44	836	851	204	37
	2	3	12	4	1024	13	38	4
	3	0	21	6	390	8	8	2
	4	2	21	6	143	3	24	1
53	1	9	429	58	857	368	344	49
	2	5	105	2	1687	176	109	3
	3	2	143	26	1541	220	304	40
	4	8	121	7	1093	132	138	7
61	1	7	534	48	576	308	393	28
	2	3	29	23	1147	34	181	26
	3	0	526	63	514	274	266	32
	4	2	526	63	114	60	42	7
62	1	1	52	3	1503	78	811	5
	2	0	52	3	601	31	98	2
	3	4	646	177	1120	724	298	200
	4	3	693	55	488	338	411	26
63	1	0	52	3	123	6	63	1
	2	0	52	3	6	<1	<1	0
	3	0	646	177	3	2	<1	1
	4	2	604	18	324	196	131	6
TOTAL; MEAN (CV%)		56	368 (20.2)	29 (21.2)	14312	3823	3878	477

Table 45. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1993:number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout database days fished on trips landing any summer flounder (WO DF), estimate of landings calculated from observed kept rates and NEFSC weighout database days fished (OB EST LAND MT), landings as recorded in the NEFSC weighout database (WO LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO DF	OB EST LAND MT	WO LAND MT	OB EST DISC MT
51	1	0	0	0	0	0	0	0
	2	0	0	0	18	0	0	0
	3	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0
52	1	1	32	<1	141	4	1	0
	2	3	31	5	1401	44	6	7
	3	0	31	5	109	3	0	1
	4	1	140	61	28	4	0	2
53	1	0	32	<1	61	2	<1	0
	2	0	31	5	32	1	<1	0
	3	0	31	5	3	0	0	0
	4	1	56	9	22	1	5	0
61	1	2	22	16	798	18	16	13
	2	4	12	20	1013	12	9	20
	3	0	<1	15	155	0	0	2
	4	2	97	13	122	12	6	2
62	1	2	88	335	515	46	39	173
	2	2	1	62	295	0	4	18
	3	1	<1	15	12	0	0	0
	4	0	97	13	311	30	9	4
63	1	0	88	335	243	21	13	81
	2	0	1	62	255	<1	4	16
	3	0	0	0	0	0	0	0
	4	0	97	13	101	10	3	1
TOTAL; MEAN (CV%)		19	11 (37.7)	10 (31.2)	5635	209	117	340

Table 46. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1994: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout (WO, quarter 1) and vessel trip report (VTR, quarter 2-4) database prorated days fished on trips landing any summer flounder (WO/VTR DF), estimate of landings calculated from observed kept rates and NEFSC WO (quarter 1) and VTR (quarter 2-4) database days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC WO and dealer (DEAL, quarter 2-4) database (WO/DEAL LAND MT), an interim step fishery observer estimate of discard in mt (OB EST DISC 1), a raising factor to account for fishing effort and discards which occur with landings (NO KEPT RATIO), and the raised fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO/VTR DF	OB EST LAND MT	WO/DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	0	0	40	0	0	0	1.0	0
	2	0	0	0	73	0	7	0	1.0	0
	3	0	0	0	6	0	2	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
52	1	2	9	6	526	5	217	3	1.0	3
	2	5	165	3	163	27	14	1	1.0	1
	3	0	165	3	378	62	13	1	2.8	3
	4	1	<1	14	4	0	1	0	2.8	0
53	1	10	756	40	924	698	460	37	1.0	37
	2	0	165	3	819	135	234	3	1.1	3
	3	2	387	5	1337	517	371	6	1.0	6
	4	8	167	20	678	113	205	14	1.0	14
61	1	12	380	31	737	280	487	23	1.0	23
	2	0	380	31	1497	569	406	46	1.0	46
	3	1	278	7	603	168	460	4	1.1	4
	4	4	50	23	611	31	188	14	1.0	14
62	1	7	1538	77	1437	2211	1016	111	1.0	111
	2	1	845	177	419	354	96	74	1.1	78
	3	5	241	36	189	45	130	7	1.0	7
	4	2	530	103	500	265	184	51	1.0	51
63	1	1	1538	77	73	112	41	6	1.0	6
	2	0	845	177	38	32	8	7	1.2	8
	3	0	241	36	1	0	0	0	1.0	0
	4	5	451	27	519	234	250	14	1.0	14
TOTAL; MEAN (CV%)		66	240 (14.8)	18 (36.4)	11572	5858	4790	422	1.0	429

Table 47. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1994: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC weighout (WO, quarter 1) and vessel trip report (VTR, quarter 2-4) database prorated days fished on trips landing any summer flounder (WO/VTR DF), estimate of landings calculated from observed kept rates and NEFSC WO (quarter 1) and VTR (quarter 2-4) database days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC WO and dealer (DEAL, quarter 2-4) database (WO/DEAL LAND MT), an interim step fishery observer estimate of discard in mt (OB EST DISC 1), a raising factor to account for fishing effort and discards which occur with landings (NO KEPT RATIO), and the raised fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	WO/VTR DF	OB EST LAND MT	WO/DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	0	0	0	0	0	0	1.0	0
	2	0	0	0	0	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
52	1	0	25	37	211	5	1	8	5.0	39
	2	1	25	37	318	8	<1	12	5.0	58
	3	1	<1	36	0	0	0	0	1.0	0
	4	1	<1	64	0	0	0	0	1.0	0
53	1	0	25	37	37	1	<1	1	1.0	1
	2	0	25	37	0	0	1	0	1.0	0
	3	0	<1	36	0	0	1	0	1.0	0
	4	1	<1	58	0	0	1	0	1.0	0
61	1	5	4	59	445	2	6	26	1.0	26
	2	1	<1	66	2282	1	2	151	1.2	186
	3	0	0	0	0	0	0	0	1.0	0
	4	1	110	<1	175	19	11	0	1.0	0
62	1	4	4	126	1031	4	65	130	1.0	130
	2	3	1	35	386	1	4	13	2.5	34
	3	0	0	0	0	0	0	0	1.0	0
	4	0	110	<1	701	77	41	1	1.4	1
63	1	2	42	111	531	23	30	59	1.4	83
	2	0	1	35	678	1	9	24	1.4	33
	3	0	0	0	0	0	0	0	1.0	0
	4	0	110	<1	35	4	4	0	10.3	0
TOTAL; MEAN (CV%)		20	3 (60.7)	44 (29.7)	6830	146	178	425	1.4	591

Table 48. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1995: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	3	<1	14	52	<1	<1	1	1.0	1
	2	1	<1	2	97	<1	5	0	1.0	0
	3	0	25	<1	23	1	6	<1	1.0	<1
	4	0	<1	45	11	0	0	0	1.0	0
52	1	6	735	3	438	322	201	1	1.0	1
	2	4	97	21	313	30	25	6	1.0	6
	3	1	25	<1	81	2	3	0	1.0	0
	4	1	<1	45	1	0	<1	0	1.0	0
53	1	3	1245	1	1111	1380	431	1	1.0	1
	2	5	293	6	1180	346	184	7	1.1	8
	3	9	494	1	1429	706	423	2	1.0	2
	4	9	213	2	822	175	326	1	1.0	1
61	1	10	1304	27	951	1229	869	25	1.0	25
	2	14	93	9	807	75	292	7	1.0	7
	3	20	27	7	945	26	319	7	1.0	7
	4	13	118	7	552	65	190	4	1.0	4
62	1	12	1047	32	847	882	748	27	1.0	27
	2	12	141	6	204	29	70	1	1.0	1
	3	25	104	31	209	22	71	6	1.0	6
	4	8	399	30	629	251	341	19	1.0	19
63	1	3	621	68	100	68	114	7	1.0	7
	2	1	1005	5	23	23	9	<1	1.0	<1
	3	0	0	0	0	0	0	0	1.0	0
	4	2	703	16	314	221	190	5	1.0	5
TOTAL; MEAN (CV%)		162	140 (10.1)	8 (17.1)	11139	5855	4819	129		130

Table 49. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1995: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	0	0	1	0	<1	0	1.0	0
	2	0	0	0	0	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	1	38	<1	0	0	0	0	1.0	0
52	1	1	29	<1	14	<1	<1	0	1.0	0
	2	0	<1	126	0	0	0	0	1.0	0
	3	1	<1	33	4	0	0	0	1.0	0
	4	2	0	75	0	0	1	0	1.0	0
53	1	0	29	<1	191	6	0	0	1.0	0
	2	1	<1	126	<1	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	0	<1	76	5	0	0	<1	1.0	<1
61	1	8	16	21	496	8	9	10	1.2	12
	2	5	9	38	472	4	3	18	1.5	27
	3	0	7	112	45	0	0	5	1.0	5
	4	2	7	112	411	3	18	46	1.6	74
62	1	6	5	61	654	3	34	40	1.3	51
	2	3	3	55	257	1	4	14	2.3	33
	3	0	0	0	0	0	0	0	1.0	0
	4	1	30	<1	345	10	9	0	1.0	0
63	1	0	5	61	55	0	11	3	1.3	4
	2	1	<1	29	65	0	1	2	2.3	4
	3	0	0	0	0	0	0	0	1.0	0
	4	0	30	<1	13	0	0	0	1.0	0
TOTAL; MEAN (CV%)		32	5 (58.5)	25 (26.9)	3029	36	92	139		212

Table 50. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1996: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	12	38	1	0	1	0	1.0	0
	2	0	32	4	55	2	2	0	1.0	0
	3	0	242	7	36	9	4	<1	3.0	<1
	4	0	0	0	0	0	0	0	3.0	0
52	1	3	12	38	189	2	87	7	1.0	7
	2	1	32	4	981	31	105	4	1.0	4
	3	0	242	7	229	55	13	2	3.9	6
	4	0	0	0	0	0	0	0	3.0	0
53	1	0	2051	87	750	1539	411	65	1.0	65
	2	14	156	2	1030	160	236	2	1.0	2
	3	9	242	7	1898	459	348	13	1.0	13
	4	5	4	106	329	1	23	35	1.6	56
61	1	4	2051	87	937	1922	469	81	1.0	91
	2	11	143	12	561	82	210	7	1.0	7
	3	21	99	5	968	96	439	5	1.0	5
	4	16	1	37	98	0	25	4	1.6	6
62	1	4	688	45	619	426	611	28	1.0	28
	2	12	19	25	117	2	50	3	1.0	3
	3	9	183	13	164	30	261	2	1.0	2
	4	9	30	53	326	10	268	17	1.0	17
63	1	1	1307	124	84	110	72	10	1.0	10
	2	2	1964	54	23	46	28	1	1.0	1
	3	1	<1	6	2	0	0	0	1.0	0
	4	0	30	53	10	0	15	1	1.0	1
TOTAL; MEAN (CV%)		122	36 (32.1)	12 (17.5)	9407	4982	3678	288		319

Table 51. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1996: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	0	0	0	0	0	0	1.0	0
	2	0	0	0	0	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
52	1	0	0	0	0	0	0	0	1.0	0
	2	9	<1	68	43	0	0	3	2.0	6
	3	0	0	0	0	0	0	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
53	1	0	0	0	0	0	0	0	1.0	0
	2	0	0	0	0	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
61	1	5	23	44	95	2	5	4	2.0	9
	2	6	2	46	51	<1	0	2	9.5	22
	3	6	1	67	0	0	0	<1	2.3	<1
	4	0	0	0	0	0	0	0	1.0	0
62	1	3	93	85	116	11	10	10	1.8	18
	2	3	1	56	115	<1	7	6	7.3	46
	3	0	0	0	0	0	0	0	1.0	0
	4	1	<1	11	393	<1	6	4	1.0	4
63	1	2	201	126	131	26	12	16	1.8	30
	2	0	0	0	0	0	0	0	1.0	0
	3	0	0	0	0	0	0	0	1.0	0
	4	0	0	0	0	0	0	0	1.0	0
TOTAL; MEAN (CV%)		35	2 (54.7)	53 (12.2)	944	42	40	46		135

Table 52. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1997: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	48	7	1	0	0	0	1.2	0
	2	0	14	<1	38	0	6	0	1.0	0
	3	0	85	22	24	2	10	1	1.6	1
	4	0	<1	36	3	0	0	0	5.1	1
52	1	5	48	7	285	14	29	2	1.0	2
	2	1	14	<1	253	4	10	0	1.0	0
	3	0	85	22	135	11	6	3	1.0	3
	4	0	<1	36	19	0	0	1	1.1	1
53	1	14	131	15	852	112	306	13	1.0	13
	2	9	66	5	1293	85	286	6	1.0	6
	3	0	85	22	1223	104	348	27	1.0	27
	4	0	<1	36	769	0	58	27	1.1	30
61	1	20	81	11	1027	83	385	11	1.0	11
	2	2	396	25	739	293	245	18	1.0	18
	3	8	85	22	584	50	287	13	1.0	13
	4	1	<1	36	367	0	29	13	1.2	16
62	1	6	182	55	185	34	113	10	1.0	10
	2	0	396	25	187	74	109	5	1.0	5
	3	0	85	22	139	12	153	3	1.0	3
	4	0	<1	416	201	0	286	83	1.0	86
63	1	3	2578	56	684	1761	1279	38	1.2	45
	2	0	396	25	17	7	13	1	1.0	1
	3	0	85	22	5	0	0	0	1.0	0
	4	1	<1	416	17	0	11	7	1.0	7
TOTAL; MEAN (CV%)		70	44 (33.7)	10 (23.4)	9047	2646	3969	282		299

Table 53. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1997: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	2	1	34	0	0	0	0	1.0	0
	2	0	1	34	0	0	0	0	3.1	0
	3	0	9	19	0	0	0	0	4.5	0
	4	0	9	19	0	0	0	0	1.0	0
52	1	0	1	34	0	0	0	0	1.0	0
	2	5	1	65	148	0	0	10	3.1	30
	3	0	9	19	15	0	0	0	4.5	0
	4	0	9	19	0	0	0	0	1.0	0
53	1	0	1	34	0	0	0	0	1.0	0
	2	0	1	65	9	0	0	1	1.0	1
	3	0	9	19	0	0	0	0	1.0	0
	4	0	9	19	0	0	0	0	1.0	0
61	1	7	5	67	244	1	3	16	1.0	16
	2	4	11	43	857	10	15	37	1.2	43
	3	3	9	19	0	0	0	0	4.5	0
	4	0	9	19	563	5	6	11	1.5	16
62	1	4	8	58	16	0	0	1	1.0	1
	2	2	1	27	30	0	1	1	1.2	1
	3	0	9	19	0	0	0	0	4.5	0
	4	0	9	19	46	1	0	0	1.0	0
63	1	0	8	58	0	0	0	0	1.0	0
	2	0	1	27	0	0	0	0	3.1	0
	3	0	9	19	0	0	0	0	4.5	0
	4	0	9	19	0	0	0	0	1.0	0
TOTAL; MEAN (CV%)		27	2 (34.7)	39 (23.9)	1928	17	25	77		108

Table 54. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1998: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	45	158	21	1	3	4	1.0	4
	2	0	180	13	204	37	8	3	1.0	3
	3	0	42	268	6	0	6	2	1.4	3
	4	0	10	26	1	0	0	0	13.4	0
52	1	2	45	158	134	6	30	21	1.0	21
	2	0	180	13	449	81	35	6	1.6	9
	3	2	42	268	42	2	6	11	1.0	12
	4	0	10	26	140	1	1	4	1.0	4
53	1	8	287	19	1281	368	362	24	1.0	24
	2	4	180	13	1354	243	345	16	1.0	16
	3	0	237	7	1299	308	286	9	1.1	10
	4	0	10	26	1078	11	40	29	1.3	36
61	1	10	159	29	743	118	373	22	1.0	22
	2	2	351	20	731	257	235	15	1.0	15
	3	1	237	7	1037	245	335	8	1.0	8
	4	19	10	26	324	3	45	8	1.3	11
62	1	9	123	11	518	64	530	5	1.0	5
	2	2	463	74	370	171	131	27	1.0	27
	3	0	237	7	184	44	200	1	1.0	1
	4	0	10	26	441	5	353	11	1.0	11
63	1	4	1471	51	1091	1604	963	56	1.0	56
	2	0	351	20	54	19	22	1	1.0	1
	3	0	237	7	28	7	6	0	1.6	0
	4	0	10	26	715	7	715	19	1.0	19
TOTAL; MEAN (CV%)		63	59 (23.2)	18 (17.5)	12245	3602	5030	302		318

Table 55. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1998: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	22	0	0	0	0	1.0	0
	2	0	1	22	0	0	0	0	1.5	0
	3	0	1	56	0	0	0	0	1.0	0
	4	0	1	44	0	0	0	0	6.6	0
52	1	0	1	22	16	0	1	1	1.0	1
	2	1	1	22	228	0	1	5	1.5	8
	3	2	1	56	0	0	0	0	1.0	0
	4	4	1	44	0	0	0	0	6.6	0
53	1	0	1	22	0	0	2	0	1.0	0
	2	0	1	22	54	0	2	1	1.0	1
	3	0	1	56	0	0	0	0	1.0	0
	4	0	1	44	0	0	1	0	1.0	0
61	1	0	23	90	158	4	3	14	1.3	19
	2	3	14	20	379	5	6	7	2.2	16
	3	3	46	31	173	8	3	5	3.7	19
	4	5	92	9	113	10	2	1	1.0	1
62	1	1	23	90	240	5	8	22	1.0	22
	2	5	4	16	320	1	4	5	1.0	5
	3	0	46	31	662	30	2	21	1.0	21
	4	1	2	81	165	1	4	13	1.0	13
63	1	0	23	90	437	10	7	40	1.1	42
	2	0	4	16	77	1	1	1	1.0	1
	3	0	46	31	0	0	0	0	1.0	0
	4	0	2	81	0	0	3	0	1.0	0
TOTAL; MEAN (CV%)		25	5 (32.0)	21 (26.2)	3022	75	50	136		169

Table 56. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 1999: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	288	160	37	11	17	6	1	6
	2	0	9	10	12	0	0	0	1	0
	3	0	9	10	6	0	3	0	4.2	0
	4	0	1	24	9	0	0	1	37.2	8
52	1	2	288	160	359	103	45	57	1	58
	2	6	9	10	300	3	10	3	1.1	3
	3	0	9	10	24	0	2	1	1.4	1
	4	1	1	24	29	0	3	1	2.3	2
53	1	5	95	80	1009	96	317	81	1	81
	2	12	106	11	2682	285	283	30	1	30
	3	4	1203	217	1170	1406	390	254	1	257
	4	4	61	19	529	32	71	10	1.1	11
61	1	5	462	205	462	214	374	95	1	98
	2	9	52	31	827	43	234	26	1	27
	3	4	11	7	623	7	215	4	1	4
	4	7	102	11	371	37	188	4	1	4
62	1	0	462	205	694	321	618	142	1	142
	2	1	99	493	300	30	147	148	1	148
	3	0	99	493	121	12	101	60	1	60
	4	5	2416	289	831	2008	413	240	1	240
63	1	8	1000	84	1279	1279	1098	107	1	107
	2	0	99	493	42	4	13	21	1	21
	3	0	99	493	20	2	1	10	1	10
	4	0	2416	289	547	1321	219	158	1	158
TOTAL; MEAN (CV%)		73	91 (24.1)	23 (32.9)	12283	7214	4762	1459		1476

Table 57. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 1999: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	237	0	0	0	0	1	0
	2	0	1	237	0	0	0	0	1	0
	3	0	1	125	0	0	0	0	1	0
	4	0	1	125	0	0	0	0	1	0
52	1	0	1	237	0	0	0.1	0	1	0
	2	0	1	237	0	0	0	0	1	0
	3	1	1	125	0	0	0	0	1	0
	4	0	1	125	0	0	0	0	1	0
53	1	0	1	237	20	1	0.1	5	1	5
	2	1	1	237	0	0	0.4	0	1	0
	3	0	1	125	0	0	0	0	1	0
	4	0	1	125	0	0	0	0	1	0
61	1	0	38	46	189	7	3	8	1.3	11
	2	2	38	46	1549	59	3	71	2.8	196
	3	3	28	113	52	1	2	6	2.8	16
	4	2	1	87	142	0	3	12	1	13
62	1	0	28	46	2468	95	14	113	1.3	144
	2	1	1	14	3519	1	16	51	1	51
	3	1	1	262	32	0	0.6	8	1	8
	4	2	64	19	158	10	5	3	1	3
63	1	0	28	46	197	8	8	9	1.3	11
	2	0	1	14	61	0	1	1	1	1
	3	0	1	262	0	0	0	0	1	0
	4	0	64	19	0	0	2	0	1	0
TOTAL; MEAN (CV%)		13	3 (52.3)	64 (38.9)	8387	182	58	287		459

Table 58. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2000: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	104	1	1	0	1	0	1.1	0
	2	1	1	4	41	0	2	0	1.5	0
	3	0	5	241	1	0	1	0	36.8	9
	4	2	1	6	0	0	0	0	10.1	0
52	1	3	104	1	443	46	62	1	1	1
	2	4	27	8	327	9	13	3	1	3
	3	3	5	241	115	1	10	28	1.1	30
	4	4	14	129	71	1	3	9	1.3	12
53	1	4	344	194	1104	380	305	214	1	214
	2	20	91	59	1314	119	259	78	1.1	82
	3	6	1034	191	717	742	376	137	1	141
	4	10	90	56	593	54	129	33	1	34
61	1	11	343	32	550	189	518	18	1	18
	2	10	204	16	752	154	225	12	1	12
	3	12	28	20	409	11	294	8	1.1	9
	4	3	35	217	207	7	38	45	1.1	49
62	1	19	617	24	1270	784	785	30	1	31
	2	4	126	4	411	52	181	2	1	2
	3	1	708	55	134	95	139	7	1	7
	4	7	1723	15	269	464	350	4	1	4
63	1	9	2584	65	1209	3125	1001	78	1	78
	2	0	126	4	25	3	19	0	1	0
	3	0	708	55	2	2	1	0	1	0
	4	0	1723	15	250	430	358	4	1	4
TOTAL; MEAN (CV%)		133	128 (18.0)	25 (21.3)	10215	6668	5070	711		740

Table 59. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2000: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	2	1	45	0	0	0	0	1.8	0
	2	0	54	9	0	0	0	0	1.8	0
	3	0	92	64	0	0	0	0	3.8	0
	4	0	2	141	0	0	0	0	3.8	0
52	1	0	1	53	0	0	0	0	1.8	0
	2	0	54	9	4	0	0	0	1.8	0
	3	0	92	64	0	0	0	0	3.8	0
	4	0	2	141	0	0	0	0	3.8	0
53	1	0	1	53	0	0	0	0	1.8	0
	2	0	54	9	0	0	0	0	1.8	0
	3	0	92	64	0	0	0	0	3.8	0
	4	0	2	141	0	0	0	0	3.8	0
61	1	4	1	53	48	0	1	3	1.8	5
	2	5	54	9	299	16	3	3	1.8	5
	3	4	92	64	34	3	1	2	3.8	8
	4	6	2	141	80	0	1	11	3.8	43
62	1	3	14	31	225	3	4	7	5	35
	2	1	85	1	123	10	5	0	5	0
	3	0	92	64	0	0	0	0	2.2	0
	4	0	2	141	234	1	8	33	2.2	71
63	1	0	14	31	0	0	0	0	5	0
	2	0	85	1	6	1	0	0	5	0
	3	0	92	64	0	0	0	0	2.2	0
	4	0	2	141	0	0	0	0	2.2	0
TOTAL; MEAN (CV%)		25	6 (49.5)	33 (18.6)	1053	34	23	59		167

Table 60. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2001: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	15	7	0	1	0	1	0
	2	0	3	13	6	0	1	0	2.5	0
	3	0	1	71	1	0	1	0	1	0
	4	2	1	60	0	0	0	0	1	0
52	1	2	1	15	336	0	31	5	1	5
	2	4	3	13	309	1	25	4	1.1	5
	3	2	1	72	316	0	18	23	1	23
	4	5	3	76	91	0	8	7	1	7
53	1	9	76	41	779	59	254	32	1	32
	2	10	62	14	1295	81	258	18	1	18
	3	16	624	21	1022	638	290	22	1	22
	4	4	207	32	463	96	187	15	1	15
61	1	17	56	118	646	36	442	76	1	76
	2	17	35	4	711	25	169	3	1	3
	3	7	30	4	412	13	340	2	1	2
	4	13	177	17	532	94	158	9	1	9
62	1	9	323	42	478	154	559	20	1.2	23
	2	3	38	14	297	11	160	4	1	4
	3	27	330	23	48	16	103	1	1	1
	4	8	18	7	569	10	649	4	1	4
63	1	0	323	42	819	264	962	35	1	36
	2	0	38	14	17	1	46	0	1	0
	3	0	330	23	21	7	4	1	1	1
	4	0	18	7	158	3	206	1	1	1
TOTAL; MEAN (CV%)		155	69 (27.8)	16 (35.3)	9333	1509	4872	282		287

Table 61. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2001: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	0	113	0	0	0	0	1	0
	2	0	0	113	0	0	0	0	1	0
	3	0	0	113	0	0	0	0	1	0
	4	0	0	113	0	0	0	0	1	0
52	1	0	0	113	0	0	0	0	1	0
	2	1	0	113	0	0	0	0	1	0
	3	0	0	113	0	0	0	0	1	0
	4	0	0	113	0	0	0	0	1	0
53	1	0	0	113	0	0	0	0	1	0
	2	0	0	113	0	0	0	0	1	0
	3	0	0	113	0	0	0	0	1	0
	4	0	0	113	0	0	0	0	1	0
61	1	2	2	53	154	0.5	2	8	10	82
	2	19	1	26	135	0.1	1	4	13	44
	3	6	1	42	0	0	0	0	1	0
	4	9	2	94	551	1	7	52	1	52
62	1	0	2	53	390	1	17	21	3	68
	2	30	1	30	135	0.1	1	4	3	13
	3	2	65	13	0	0	1	0	1	0
	4	17	1	53	723	0.6	15	38	1	38
63	1	0	2	53	0	0	0	0	3	0
	2	0	1	30	0	0	0	0	3	0
	3	0	65	13	0	0	0	0	1	0
	4	1	1	11	0	0	0	0	1	0
TOTAL; MEAN (CV%)		87	1 (123.4)	77 (11.5)	2088	3.3	44	127		297

Table 62. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2002: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	1	1	18	0	0	0	0	1	0
	2	0	1	18	20	0	5	0	1	0
	3	2	1	77	0	0	1	0	1	0
	4	13	1	14	0	0	0	0	1	0
52	1	1	186	128	670	125	68	86	1	86
	2	7	8	7	654	5	38	5	1	5
	3	12	75	20	324	23	35	7	1	7
	4	22	1	17	100	0	1	1	1	1
53	1	1	3402	245	595	2023	351	146	1	146
	2	10	60	11	1038	63	408	11	1	11
	3	9	559	31	821	459	354	26	1	26
	4	16	294	60	396	116	131	24	1	24
61	1	4	2069	5	547	1132	320	3	1	3
	2	12	205	17	649	133	326	11	1	11
	3	15	279	8	625	174	497	5	1	5
	4	4	117	5	524	62	264	2	1	2
62	1	11	720	9	832	599	1226	8	1	8
	2	1	34	46	284	10	207	13	1	13
	3	31	420	21	92	39	206	2	1	2
	4	2	813	9	844	687	826	7	1	7
63	1	8	1182	34	681	804	1031	23	1	23
	2	0	34	46	49	2	47	2	1	2
	3	0	420	21	0	0	0	0	1	0
	4	0	813	9	188	153	195	2	1	2
TOTAL; MEAN (CV%)		182	72 (17.9)	15 (20.9)	9933	6609	6537	384		384

Table 63. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2002: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	2	95	0	0	0	0	1	0
	2	0	1	42	0	0	0	0	1	0
	3	0	0	93	0	0	0	0	1	0
	4	0	0	52	0	0	0	0	1	0
52	1	0	2	95	0	0	0	0	1	0
	2	0	1	42	0	0	0	0	1	0
	3	5	0	93	0	0	0	0	1	0
	4	4	0	52	0	0	0	0	1	0
53	1	0	2	95	0	0	0	0	1	0
	2	0	1	42	0	0	0	0	1	0
	3	0	0	93	0	0	0	0	1	0
	4	0	0	52	0	0	0	0	1	0
61	1	8	2	95	813	1.6	4	77	1	77
	2	19	1	42	102	0.1	1	4	1	4
	3	10	2	19	0	0	1	0	1	0
	4	20	2	81	275	0.4	5	23	1	23
62	1	9	1	84	643	0.9	5	54	1	54
	2	14	1	47	20	0	3	1	1	1
	3	4	4	10	0	0	1	0	1	0
	4	16	1	40	482	0.6	14	19	1	19
63	1	0	1	84	0	0	0	0	1	0
	2	0	1	47	0	0	0	0	1	0
	3	0	4	10	0	0	0	0	1	0
	4	0	1	40	0	0	0	0	1	0
TOTAL; MEAN (CV%)		109	1 (57.5)	47 (24.8)	2335	3.6	34	178		178

Table 64. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2003: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	3	1	6	15	0	1	0	1	0
	2	4	1	5	91	0	2	1	1	1
	3	0	4	10	0	0	1	0	1	0
	4	2	4	10	0	0	0	0	1	0
52	1	21	26	7	310	8	45	2	1	2
	2	26	7	3	291	2	9	1	1	1
	3	20	6	60	824	5	25	49	1	49
	4	17	2	22	1347	3	54	31	1	31
53	1	14	802	41	777	623	444	31	1	31
	2	16	66	15	1278	84	245	19	1	19
	3	10	336	195	1198	403	386	234	1	234
	4	16	105	3	682	72	209	2	1	2
61	1	4	291	19	413	120	399	8	1	8
	2	17	441	46	682	301	289	31	1	31
	3	11	428	75	445	191	352	33	1	33
	4	16	707	9	800	566	604	7	1	7
62	1	9	3005	86	925	2780	1718	76	1	76
	2	10	617	8	269	166	162	2	1	2
	3	4	281	71	118	33	121	8	1	8
	4	8	451	14	630	284	580	9	1	9
63	1	8	683	24	365	249	614	9	1	9
	2	0	617	8	162	100	12	1	1	1
	3	0	281	71	1	0	0	0	1	0
	4	0	451	14	118	0	135	2	1	2
TOTAL; MEAN (CV%)		236	64 (17.0)	13 (18.7)	11741	5990	6407	556		556

Table 65. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2003: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	145	0	0	0	0	1	0
	2	0	1	145	0	0	0	0	1	0
	3	0	11	75	0	0	0	0	1	0
	4	0	50	70	0	0	0	0	1	0
52	1	0	1	145	0	0	0	0	1	0
	2	2	1	145	0	0	0	0	1	0
	3	2	11	75	7	<1	0	1	1	1
	4	2	50	70	0	0	0	0	1	0
53	1	0	1	145	0	0	0	0	1	0
	2	0	1	145	0	0	0	0	1	0
	3	0	11	75	0	0	0	0	1	0
	4	1	1	45	0	0	0	0	1	0
61	1	22	1	70	159	<1	0	11	1	11
	2	9	3	39	0	0	0	0	1	0
	3	2	1	40	0	0	0	0	1	0
	4	15	1	91	0	0	0	0	1	0
62	1	15	4	84	284	2	9	24	1	24
	2	14	2	26	271	1	12	7	1	7
	3	4	1	19	0	0	0	0	1	0
	4	18	1	64	948	1	20	61	1	61
63	1	0	4	84	3	<1	<1	0	1	0
	2	0	2	26	0	0	0	0	1	0
	3	0	1	19	0	0	0	0	1	0
	4	0	1	64	2	<1	<1	0	1	0
TOTAL; MEAN (CV%)		106	1 (35.1)	56 (14.1)	1674	8	43	104		104

Table 66. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2004: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	3	16	6	26	1	1	0	1	0
	2	5	1	6	80	1	2	0	1	0
	3	2	434	1	27	12	1	0	1	0
	4	10	9	3	158	1	8	0	1	0
52	1	15	9	6	333	3	83	2	1	2
	2	32	2	11	425	1	9	5	1	5
	3	34	20	36	10	1	8	0	1	0
	4	12	14	20	35	1	16	1	1	1
53	1	17	1609	112	764	1229	501	86	1	86
	2	51	209	22	802	168	247	18	1	18
	3	88	926	30	600	556	440	18	1	18
	4	31	622	2	305	190	314	1	1	1
61	1	39	669	15	461	308	793	7	1	7
	2	61	443	19	952	422	492	18	1	18
	3	47	241	24	623	150	473	15	1	15
	4	85	412	10	450	186	528	5	1	5
62	1	42	1720	14	825	1419	2105	12	1	12
	2	4	492	25	266	131	159	7	1	7
	3	4	83	18	118	10	83	1	1	1
	4	17	208	22	515	107	954	11	1	11
63	1	2	1180	15	76	90	189	1	1	1
	2	0	492	25	6	3	28	0	1	0
	3	0	83	12	4	1	1	0	1	0
	4	1	1	29	168	1	282	5	1	5
TOTAL; MEAN (CV%)		602	218 (9.8)	15 (17.8)	8029	4992	7717	213		213

Table 67. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2004: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	2	217	0	0	0	0	1	0
	2	0	1	66	0	0	0	0	1	0
	3	0	1	109	0	0	0	0	1	0
	4	3	1	19	0	0	0	0	1	0
52	1	0	2	217	0	0	0	0	1	0
	2	0	1	66	0	0	0	0	1	0
	3	4	1	124	0	0	0	0	1	0
	4	5	1	110	0	0	0	0	1	0
53	1	0	2	217	0	0	0	0	1	0
	2	0	1	66	0	0	0	0	1	0
	3	1	1	109	0	0	0	0	1	0
	4	0	1	110	0	0	0	0	1	0
61	1	10	2	217	31	0	1	7	1	7
	2	37	1	66	3	0	0	0	1	0
	3	14	1	15	0	0	0	0	1	0
	4	22	1	42	0	0	0	0	1	0
62	1	10	4	83	739	3	19	61	1	61
	2	25	1	28	130	0	1	4	1	4
	3	6	1	22	0	0	0	0	1	0
	4	16	5	56	327	2	9	18	1	18
63	1	0	4	83	29	0	1	2	1	2
	2	0	1	28	0	0	0	0	1	0
	3	0	1	22	0	0	0	0	1	0
	4	0	5	56	0	0	0	0	1	0
TOTAL; MEAN (CV%)		153	1 (46.8)	47 (11.1)	1259	5	31	92		92

Table 68. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2005: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	3	4	432	1	5	2	1	2
	2	3	3	4	0	0	0	0	1	0
	3	7	6	2	17	0	9	0	1	0
	4	17	4	3	55	1	6	0	1	0
52	1	105	58	10	815	48	134	8	1	8
	2	180	6	14	349	2	23	5	1	5
	3	84	22	53	738	16	26	39	1	39
	4	115	5	44	830	4	58	36	1	36
53	1	68	1137	23	368	419	544	9	1	9
	2	66	479	20	592	283	361	12	1	12
	3	201	668	8	783	523	351	6	1	6
	4	40	231	5	411	95	352	2	1	2
61	1	46	897	15	751	674	1206	11	1	11
	2	40	344	17	722	249	477	12	1	12
	3	71	457	11	742	339	635	8	1	8
	4	53	211	6	415	88	354	2	1	2
62	1	21	475	15	993	472	1973	15	1	15
	2	7	27	1	345	10	314	0	1	0
	3	2	872	135	88	76	44	12	1	12
	4	20	64	22	467	30	575	10	1	10
63	1	7	2597	54	27	71	148	2	1	2
	2	0	28	1	29	1	44	0	1	0
	3	0	872	135	0	0	0	0	1	0
	4	3	201	1	113	23	126	0	1	0
TOTAL; MEAN (CV%)		1156	89 (8.6)	13 (16.1)	10082	3425	7765	191		191

Table 69. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2005: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	2	54	0	0	0	0	1	0
	2	0	1	57	0	0	0	0	1	0
	3	0	1	168	0	0	0	0	1	0
	4	0	1	98	0	0	0	0	1	0
52	1	4	2	54	5	0	0	0	1	0
	2	5	1	57	0	0	0	0	1	0
	3	23	1	168	0	0	0	0	1	0
	4	19	1	98	0	0	0	0	1	0
53	1	2	179	29	0	0	0	0	1	0
	2	0	179	29	0	0	0	0	1	0
	3	0	1	318	0	0	0	0	1	0
	4	1	1	318	0	0	0	0	1	0
61	1	30	1	54	0	0	0	0	1	0
	2	32	1	45	22	0	1	1	1.1	1
	3	10	2	16	0	0	0	0	1	0
	4	18	9	34	7	0	1	0	1	0
62	1	24	3	36	749	3	19	27	1	27
	2	12	1	44	1304	1	6	58	1	58
	3	3	1	9	994	1	25	9	1	9
	4	25	6	21	52	0	3	1	1	1
63	1	1	1	137	0	0	0	0	1	0
	2	0	1	44	0	0	0	0	1	0
	3	0	1	9	0	0	0	0	1	0
	4	0	6	21	0	0	0	0	1	0
TOTAL; MEAN (CV%)		209	1 (29.2)	44 (12.9)	3133	5	55	96		96

Table 70. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2006: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	6	7	3	11	0	0	0	1	0
	2	0	7	3	195	1	2	1	1	1
	3	1	1	10	1	0	2	0	1	0
	4	2	0	40	0	0	0	0	1	0
52	1	88	17	96	129	2	58	12	1	12
	2	77	10	15	679	7	11	10	1	10
	3	81	23	49	451	11	13	22	1	22
	4	15	0	34	0	0	0	0	1	0
53	1	61	466	46	510	237	626	24	1	24
	2	24	117	12	785	92	212	9	1	9
	3	25	478	54	976	466	336	53	1	53
	4	20	198	31	64	13	32	2	1	2
61	1	33	355	22	691	245	1176	16	1	16
	2	37	260	38	878	228	395	34	1	34
	3	38	216	15	661	143	460	10	1	10
	4	30	73	7	561	41	711	4	1	4
62	1	15	276	15	582	161	1202	9	1	9
	2	5	111	7	140	16	196	1	1	1
	3	5	26	2	46	1	59	0	1	0
	4	8	136	12	390	53	637	5	1	5
63	1	6	60	1	51	3	90	0	1	0
	2	0	60	1	1	1	5	0	1	0
	3	0	89	76	0	0	0	0	1	0
	4	1	89	76	736	66	38	56	1	56
TOTAL; MEAN (CV%)		578	56 (2.4)	26 (2.6)	8538	1787	6261	268		268

Table 71. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2006: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), prorated landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	54	0	0	0	0	1	0
	2	0	1	114	0	0	0	0	1	0
	3	0	1	84	0	0	0	0	1	0
	4	0	1	73	0	0	0	0	1	0
52	1	4	1	55	0	0	0	0	1	0
	2	15	1	114	0	0	0	0	1	0
	3	26	1	84	0	0	0	0	1	0
	4	9	1	73	0	0	0	0	1	0
53	1	0	1	55	0	0	0	0	1	0
	2	0	1	114	0	0	0	0	1	0
	3	3	1	66	0	0	0	0	1	0
	4	0	1	66	0	0	0	0	1	0
61	1	6	3	40	1488	5	9	59	1	59
	2	0	3	40	0	0	1	0	1	0
	3	19	4	19	0	0	2	0	1	0
	4	15	9	59	0	0	18	0	1	0
62	1	7	4	24	749	3	40	18	1	18
	2	0	4	24	0	0	3	0	1	0
	3	4	1	14	994	1	9	13	1	13
	4	9	4	29	87	0	5	3	1	3
63	1	0	4	24	0	0	0	0	1	0
	2	0	4	24	0	0	0	0	1	0
	3	0	1	14	0	0	0	0	1	0
	4	0	4	29	0	0	0	0	1	0
TOTAL; MEAN (CV%)		117	2 (15.9)	45 (2.9)	3318	9	87	93		93

Table 72. Summary of TRAWL GEAR (>05') fishery observer data for summer flounder by NAFO division and quarter for 2007: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	3	1	25	2	0	0	0	1	0
	2	3	1	6	9	0	1	0	1	0
	3	0	1	25	27	0	2	1	1	1
	4	9	1	25	0	0	3	0	1	0
52	1	40	19	81	355	7	85	29	1	29
	2	82	8	18	356	3	9	6	1	6
	3	61	4	114	246	1	11	28	1	28
	4	47	1	133	84	0	1	11	1	11
53	1	19	194	37	439	85	357	16	1	16
	2	38	94	29	786	74	278	22	1	22
	3	56	39	77	558	22	227	43	1	43
	4	13	101	223	271	27	98	60	1	60
61	1	27	374	10	766	287	1245	8	1	8
	2	71	198	9	822	162	315	7	1	7
	3	147	304	14	573	174	435	8	1	8
	4	37	27	31	130	3	162	4	1	4
62	1	8	112	25	140	16	278	4	1	4
	2	5	363	6	89	32	145	1	1	1
	3	12	422	5	46	19	50	0	1	0
	4	21	186	133	155	29	206	21	1	21
63	1	14	68	12	340	23	399	4	1	4
	2	0	68	12	4	1	6	0	1	0
	3	0	298	28	0	0	0	0	1	0
	4	9	298	28	84	25	72	2	1	2
TOTAL; MEAN (CV%)		722	41 (2.6)	27 (1.5)	6282	990	4385	275		275

Table 73. Summary of SCALLOP DREDGE (>13') fishery observer data for summer flounder by NAFO division and quarter for 2007: number of observed trips (OBTRIPS; trips in more than one statistical area are split) kept and discard rates (K_DF, D_DF; kg per day fished), NEFSC vessel trip report (VTR) database prorated days fished on trips landing any summer flounder (VTR DF), estimate of landings calculated from observed kept rates and NEFSC VTR database prorated days fished (OB EST LAND MT), landings as recorded in the NEFSC dealer (DEAL) database (DEAL LAND MT), and the fishery observer estimate of discard in mt (OB EST DISCARD).

DIV	QTR	OBTRIPS	K_DF	D_DF	VTR DF	OB EST LAND MT	DEAL LAND MT	OB EST DISC 1	NO KEPT RATIO	OB EST DISC MT
51	1	0	1	43	0	0	0	0	1	0
	2	0	1	138	0	0	0	0	1	0
	3	0	1	92	0	0	0	0	1	0
	4	0	1	133	0	0	0	0	1	0
52	1	3	1	43	0	0	0	0	1	0
	2	43	8	138	0	0	0	0	1	0
	3	59	4	92	0	0	0	0	1	0
	4	14	1	133	0	0	0	0	1	0
53	1	1	1	47	0	0	0	0	1	0
	2	0	1	47	0	0	0	0	1	0
	3	2	1	238	0	0	0	0	1	0
	4	0	1	238	0	0	0	0	1	0
61	1	19	1	40	847	1	26	34	1	34
	2	24	1	23	0	0	1	0	1	0
	3	7	1	43	0	0	0	0	1	0
	4	17	1	72	0	0	0	0	1	0
62	1	16	1	86	749	1	17	64	1	64
	2	13	1	51	0	0	1	0	1	0
	3	1	20	7	994	20	1	7	1	7
	4	25	1	81	0	0	0	0	1	0
63	1	0	1	86	0	0	0	0	1	0
	2	0	1	51	0	0	0	0	1	0
	3	0	20	7	0	0	0	0	1	0
	4	0	1	81	0	0	0	0	1	0
TOTAL; MEAN (CV%)		244	1 (19.5)	72 (1.1)	2590	22	46	105		105

Table 74. Summary of Northeast Region fishery observer data to estimate summer flounder discard at age in the commercial fishery. Estimates developed using fishery observer length samples, age-length data, and estimates of total discard in mt. An 80% discard mortality rate is assumed. 1994-2006 lengths converted to age using 1994-2006 NEFSC trawl survey age-length keys; n/a = not available.

Year	Gear	Lengths	Ages	Fishery observer Discard Estimate (mt)	Sampling Intensity (mt per 100 lengths)	Raised Discard Estimate (mt)	Raised Estimate with 80% mortality rate (mt)
1989	All	2,337	54	642	27	886	709
1990	All	3,891	453	1,121	29	1,517	1,214
1991	All	5,326	190	993	19	1,315	1,052
1992	All	9,626	331	755	8	862	690
1993	All	3,410	406	817	24	1,057	846
1994	Trawl	2,338	---	429	18	542	434
	Scallop	660	---	590	89	590	472
	All	2,998	354	1,019	34	1,132	906
1995	Trawl	1,822	---	130	7	173	138
	Scallop	731	---	212	29	212	170
	All	2,553	n/a	342	13	385	308
1996	Trawl	1,873	---	319	17	444	355
	Scallop	854	---	135	16	135	108
	All	2,727	n/a	454	17	579	463
1997	Trawl	839		299	36	299	239
	Scallop	556		108	19	108	86
	All	1,395	n/a	407	29	407	326

Table 74 continued.

Year	Gear	Lengths	Ages	Fishery Observer Discard Estimate (mt)	Sampling Intensity (mt per 100 lengths)	Raised Discard Estimate (mt)	Raised Estimate with 80% mortality rate (mt)
1998	Trawl	721		318	44	318	254
	Scallop	150		169	113	169	135
	All	871	n/a	487	56	487	389
1999	Trawl	1,145		1,476	129	1,476	1,181
	Scallop	216		459	213	459	367
	All	1,361	n/a	1,935	142	1,935	1,548
2000	Trawl	1,470		740	50	740	592
	Scallop	2,611		167	6	167	134
	All	4,081	n/a	907	22	907	726
2001	Trawl	1,528		287	19	287	230
	Scallop	705		297	42	297	238
	All	2,233	n/a	584	26	584	468
2002	Trawl	3,438		384	11	384	307
	Scallop	2,952		178	6	178	142
	All	6,390	n/a	562	9	562	449
2003	Trawl	4,233		556	13	556	445
	Scallop	2,594		104	4	104	83
	All	6,827	n/a	660	10	660	528
2004	Trawl	5,760		213	4	213	170
	Scallop	8,811		92	1	92	74
	All	14,571	n/a	305	2	305	244
2005	Trawl	9,562		191	2	191	153
	Scallop	4,690		96	2	96	77
	All	14,252	n/a	287	2	287	230

Table 74 continued.

Year	Gear	Lengths	Ages	Fishery Observer Discard Estimate (mt)	Sampling Intensity (mt per 100 lengths)	Raised Discard Estimate (mt)	Raised Estimate with 80% mortality rate (mt)
2006	Trawl	8,283		268	3	268	214
	Scallop	1,911		93	5	93	74
	All	10,194	n/a	361	4	361	288
2007	Trawl	12,725		275	2	275	220
	Scallop	4,972		105	2	105	84
	All	17,697	n/a	380	2	380	304

Table 75. Comparison of commercial fishery dealer reported landings of summer flounder with estimates of summer flounder commercial landings from landings rates of NEFSC Domestic Observer sampling and commercial fishing effort (days fished) reported on commercial Vessel Trip Reports (VTR). Dealer and Landings estimates prior to 1997 do not reflect NC landings and effort.

Year	VTR Days Fished (>000)	Observed Landings Estimate (mt)	Dealer landings Estimate (mt)	Percent Difference (Obs-Dealer)
1989	19,805	7,255	5,817	25
1990	15,980	2,959	2,749	8
1991	26,096	4,123	4,355	-5
1992	18,148	5,343	6,066	-12
1993	19,947	4,032	3,995	1
1994	18,402	6,004	4,968	21
1995	14,168	5,891	4,911	20
1996	10,351	5,024	3,718	35
1997	10,975	2,663	3,994	-33
1998	15,267	3,677	5,076	-28
1999	20,670	7,396	4,820	53
2000	11,268	6,702	5,085	32
2001	11,421	1,509	4,970	-70
2002	12,268	6,609	6,573	1
2003	13,415	5,786	6,450	-10
2004	9,288	4,997	8,228	-39
2005	13,215	3,478	7,826	-56
2006	11,856	1,794	6,262	-71
2007	8,872	1,012	4,431	-77

Table 76. Estimated summer flounder discard at age in the in the commercial fishery. Lengths converted to age using annual NEFSC trawl survey age-length keys. Includes an assumed 80% discard mortality rate.

<u>Discard numbers at age (000s)</u>						
Year	Gear	0	1	2	3+	Total
1989	All	775	1,628	94	0	2,497
1990	All	1,441	2,755	67	0	4,263
1991	All	891	3,424	<1	0	4,315
1992	All	1,155	1,544	36	3	2,738
1993	All	1,041	1,532	179	1	2,753
1994	Trawl	571	1,014	95	0	1,680
	Scallop	0	663	398	36	1,097
	All	571	1,677	493	36	2,777
1995	Trawl	141	294	58	2	495
	Scallop	0	114	148	20	282
	All	141	408	206	22	777
1996	Trawl	23	417	167	56	663
	Scallop	<1	221	72	5	298
	All	23	638	239	61	961
1997	Trawl	8	215	203	50	476
	Scallop	0	34	98	22	154
	All	8	249	301	72	630
1998	Trawl	26	132	146	95	399
	Scallop	1	42	73	52	168
	All	27	174	219	157	567
1999	Trawl	95	1,159	1,012	255	2,521
	Scallop	1	64	239	176	480
	All	96	1,223	1,251	431	3,001
2000	Trawl	20	118	378	303	819
	Scallop	2	46	82	49	179
	All	22	164	460	352	998
2001	Trawl	11	86	56	128	281
	Scallop	0	13	50	142	205
	All	11	99	106	270	486
2002	Trawl	12	94	137	106	349
	Scallop	1	30	83	63	177
	All	13	124	220	169	526
2003	Trawl	2	221	208	84	515
	Scallop	0	43	48	20	111
	All	2	264	256	104	626
2004	Trawl	1	25	70	70	166
	Scallop	<1	14	64	27	105
	All	2	39	134	98	271
2005	Trawl	4	33	44	65	146
	Scallop	<1	8	52	40	100
	All	4	41	96	105	246
2006	Trawl	4	38	102	82	226
	Scallop	<1	11	79	34	124
	All	4	49	181	115	350
2007	Trawl	9	26	29	108	172
	Scallop	<1	3	51	55	109
	All	9	29	80	163	

Table 77. Estimated summer flounder discard mean length at age in the commercial fishery. Lengths converted to age using NEFSC trawl survey age-length keys.

Discard mean length (cm) at age						
Year	Gear	0	1	2	3+	All
1989	All	25.9	31.5	44.2		30.2
1990	All	29.0	31.7	38.9		30.9
1991	All	24.0	30.9	37.0		29.5
1992	All	29.3	30.0	36.6	51.2	29.8
1993	All	30.0	32.5	34.8	55.0	31.7
1994	Trawl	26.0	31.3	34.5		29.7
	Scallop		30.8	38.2	52.1	34.2
	All	26.0	31.1	37.5	52.1	31.5
1995	Trawl	29.6	29.4	37.0	50.9	30.4
	Scallop		30.7	40.6	52.4	37.4
	All	29.6	29.8	39.6	52.5	33.0
1996	Trawl	28.9	32.0	38.1	55.8	35.5
	Scallop	31.4	30.7	38.2	48.5	32.8
	All	29.0	31.6	38.1	55.2	34.7
1997	Trawl	26.9	32.1	37.8	46.6	36.0
	Scallop		32.5	37.2	45.9	37.5
	All	26.9	32.2	37.6	46.3	36.4
1998	Trawl	26.0	32.5	37.5	48.3	37.7
	Scallop	30.0	35.0	39.7	48.9	41.3
	All	26.1	33.1	38.2	48.5	38.8
1999	Trawl	25.8	32.0	35.9	48.5	34.9
	Scallop	31.0	33.2	36.3	48.8	40.5
	All	25.9	32.1	36.0	48.6	35.9
2000	Trawl	17.2	32.6	37.7	46.3	39.5
	Scallop	26.8	34.4	39.5	47.6	40.3
	All	18.1	33.2	38.0	46.5	39.6
2001	Trawl	22.9	33.7	39.6	47.7	40.8
	Scallop		37.1	40.6	49.1	46.3
	All	22.9	34.2	40.1	48.5	43.1
2002	Trawl	27.7	32.4	37.6	53.6	40.7
	Scallop	27.7	35.1	39.1	48.1	41.5
	All	27.7	33.1	38.1	51.6	41.0
2003	Trawl	27.4	33.6	38.3	54.4	38.9
	Scallop		34.6	40.1	50.1	39.7
	All	27.4	33.8	38.6	53.6	39.0
2004	Trawl	28.4	33.6	38.8	51.8	43.4
	Scallop	29.1	32.9	37.9	47.4	39.7
	All	28.5	33.3	38.4	50.6	42.0
2005	Trawl	28.4	33.3	38.7	52.3	43.3
	Scallop	30.7	31.2	37.2	46.9	40.6
	All	28.4	32.9	37.9	50.3	42
2006	Trawl	25.8	33.9	37.6	50.5	41.4
	Scallop	25.0	33.9	36.2	43.9	38.1
	All	25.8	33.9	37.0	48.6	40.3
2007	Trawl	26.1	32.8	41.1	51.4	45.5
	Scallop	24.3	31.6	38.2	44.5	41.2
	All	26.1	32.7	39.3	49.0	43

Table 78. Estimated summer flounder discard mean weight at age in the in the commercial fishery. Lengths converted to age using NEFSC trawl survey age-length keys.

Discard mean weight (kg) at age						
Year	Gear	0	1	2	3+	All
1989	All	0.182	0.296	0.909		0.284
1990	All	0.235	0.304	0.559		0.285
1991	All	0.124	0.275	0.491		0.244
1992	All	0.238	0.256	0.498	1.450	0.252
1993	All	0.253	0.332	0.413		0.307
1994	Trawl	0.177	0.291	0.392		0.258
	Scallop		0.287	0.565	1.565	0.430
	All	0.177	0.289	0.532	1.565	0.326
1995	Trawl	0.244	0.242	0.522	1.505	0.280
	Scallop		0.281	0.702	1.604	0.595
	All	0.244	0.253	0.651	1.597	0.395
1996	Trawl	0.226	0.312	0.586	2.004	0.521
	Scallop	0.305	0.274	0.572	1.254	0.363
	All	0.227	0.299	0.582	1.937	0.472
1997	Trawl	0.178	0.327	0.560	1.088	0.504
	Scallop		0.331	0.553	1.044	0.558
	All	0.178	0.328	0.558	1.075	0.517
1998	Trawl	0.158	0.332	0.533	1.346	0.637
	Scallop	0.247	0.421	0.651	1.357	0.808
	All	0.161	0.353	0.572	1.350	0.688
1999	Trawl	0.156	0.317	0.462	1.300	0.468
	Scallop	0.275	0.355	0.478	1.310	0.767
	All	0.157	0.319	0.465	1.304	0.516
2000	Trawl	0.055	0.355	0.555	1.114	0.722
	Scallop	0.174	0.412	0.643	1.023	0.741
	All	0.066	0.371	0.571	1.138	0.725
2001	Trawl	0.114	0.373	0.642	1.210	0.797
	Scallop		0.510	0.692	1.339	1.127
	All	0.114	0.391	0.665	1.278	0.936
2002	Trawl	0.194	0.331	0.538	1.851	0.871
	Scallop	0.195	0.429	0.608	1.235	0.795
	All	0.194	0.355	0.565	1.623	0.845
2003	Trawl	0.186	0.371	0.583	1.871	0.701
	Scallop		0.413	0.672	1.430	0.705
	All	0.186	0.378	0.600	1.788	0.701
2004	Trawl	0.220	0.386	0.599	1.625	0.996
	Scallop	0.223	0.352	0.554	1.234	0.698
	All	0.220	0.374	0.578	1.508	0.880
2005	Trawl	0.214	0.366	0.597	1.669	1.015
	Scallop	0.268	0.290	0.520	1.162	0.752
	All	0.214	0.351	0.555	1.480	0.908
2006	Trawl	0.157	0.382	0.547	1.505	0.860
	Scallop	0.137	0.374	0.468	0.976	0.597
	All	0.157	0.380	0.513	1.352	0.767
2007	Trawl	0.161	0.338	0.717	1.548	1.152
	Scallop	0.133	0.302	0.558	0.962	0.755
	All	0.161	0.334	0.616	1.349	0.998

Table 79. Estimated total landings (catch types A + B1, [000s]) of summer flounder by recreational fishermen. SHORE mode includes fish taken from beach/bank and man-made structures. P/C indicates catch taken from party/charter boats, while P/R indicates fish taken from private/rental boats. Proportional Standard Error (PSE) is for the TOTAL landings estimate.

	YEAR										
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
North											
Shore	167	144	62	10	70	39	42	4	16	9	26
P/C Boat	138	201	5	3	48	7	1	1	1	8	1
P/R Boat	1,293	747	568	382	2,562	648	377	137	99	173	211
TOTAL	1,598	1,092	635	395	2,680	694	420	142	116	190	238
Mid											
Shore	682	3,296	977	272	478	251	596	84	96	505	200
P/C Boat	5,745	3,321	2,381	1,068	1,541	1,143	1,134	141	412	589	374
P/R Boat	5,731	12,345	11,764	8,454	5,924	5,499	7,153	1,141	2,658	4,573	3,983
TOTAL	12,158	18,962	15,122	9,794	7,943	6,893	8,883	1,366	3,166	5,667	4,557
South											
Shore	272	523	316	504	689	115	308	91	150	51	50
P/C Boat	53	52	110	81	20	1	1	1	1	1	1
P/R Boat	1,392	367	1,292	292	289	162	348	117	361	159	156
TOTAL	1,717	942	1,718	877	998	278	657	209	512	211	207
All											
Shore	1,121	3,963	1,355	786	1,237	405	946	179	262	565	276
P/C Boat	5,936	3,574	2,496	1,152	1,609	1,151	1,136	143	414	598	376
P/R Boat	8,416	13,459	13,624	9,128	8,775	6,309	7,878	1,395	3,118	4,905	4,350
TOTAL	15,473	20,996	17,475	11,066	11,621	7,865	9,960	1,717	3,794	6,068	5,002
PSE (%)	26	7	8	12	7	5	4	6	4	4	4

Table 79 continued.

	YEAR										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
North											
Shore	37	47	19	22	27	44	34	61	5	18	26
P/C Boat	14	25	7	5	22	26	19	49	14	21	36
P/R Boat	298	584	388	702	669	970	769	1,448	555	401	487
TOTAL	349	656	414	729	718	1,040	822	1,558	574	440	549
Mid											
Shore	186	217	173	134	195	243	157	467	199	123	145
P/C Boat	999	809	260	650	907	333	281	600	316	238	353
P/R Boat	4,579	4,633	2,330	5,137	5,059	4,972	2,610	4,802	3,878	2,272	3,424
TOTAL	5,764	5,659	2,763	5,921	6,161	5,548	3,048	5,869	4,393	2,633	3,922
South											
Shore	118	183	49	50	33	30	22	41	22	14	32
P/C Boat	1	3	1	5	2	1	<1	1	<1	3	<1
P/R Boat	262	202	99	292	253	360	214	332	304	172	55
TOTAL	381	388	149	347	288	391	237	374	327	189	88
All Regions											
Shore	341	447	241	206	255	317	213	569	226	155	203
P/C Boat	1,014	837	268	660	931	360	301	650	331	262	390
P/R Boat	5,139	5,419	2,817	6,131	5,981	6,302	3,593	6,582	4,737	2,845	3,966
TOTAL	6,494	6,703	3,326	6,997	7,167	6,979	4,107	7,801	5,294	3,262	4,559
PSE (%)	4	4	4	3	4	4	4	3	4	4	4

Table 79 continued.

	YEAR			
	2004	2005	2006	2007
North				
Shore	21	22	12	2
P/C Boat	25	33	37	55
P/R Boat	740	550	539	360
TOTAL	786	605	588	417
Mid				
Shore	143	109	90	145
P/C Boat	467	518	258	327
P/R Boat	2,988	2,751	2,965	2,319
TOTAL	3,598	3,378	3,313	2,791
South				
Shore	46	14	25	14
P/C Boat	3	1	1	20
P/R Boat	124	112	125	151
TOTAL	173	127	151	185
All				
Shore	210	145	127	161
P/C Boat	495	552	296	402
P/R Boat	3,852	3,413	3,629	2,830
TOTAL	4,557	4,110	4,052	3,393
PSE (%)	4	5	5	5

Table 80. Estimated total landings (catch types A + B1, [mt]) of summer flounder by recreational fishermen. SHORE mode includes fish taken from beach/bank and man-made structures. P/C indicates catch taken from party/charter boats, while P/R indicates fish taken from private/rental boats. Proportional Standard Error (PSE) is for the TOTAL landings estimate.

	YEAR										
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
North											
Shore	87	59	17	7	25	21	32	2	16	6	20
P/C Boat	85	87	4	2	45	4	<1	<1	<1	6	<1
P/R Boat	875	454	388	328	2,597	582	290	141	89	150	175
TOTAL	1,047	600	409	337	2,667	607	323	144	106	162	196
Mid											
Shore	295	1,254	399	140	293	129	330	52	56	306	126
P/C Boat	3,112	2,196	1,426	609	1,093	1,098	776	125	264	364	267
P/R Boat	3,085	8,389	5,686	4,187	3,521	3,596	4,928	985	1,665	2,673	2,536
TOTAL	6,492	11,839	7,511	4,936	4,907	4,823	6,034	1,162	1,985	3,343	2,929
South											
Shore	87	134	98	230	425	34	113	57	76	25	25
P/C Boat	12	12	23	20	7	1	<1	<1	<1	<1	<1
P/R Boat	629	102	471	142	96	54	163	71	161	80	91
TOTAL	728	248	592	392	528	89	277	129	238	106	117
All											
Shore	469	1,447	514	377	743	184	475	111	148	337	171
P/C Boat	3,209	2,295	1,453	631	1,145	1,103	778	127	266	371	269
P/R Boat	4,589	8,945	6,545	4,657	6,214	4,232	5,381	1,197	1,915	2,903	2,802
TOTAL	8,267	12,687	8,512	5,665	8,102	5,519	6,634	1,435	2,329	3,611	3,242
PSE (%)	25	7	8	11	9	9	4	6	4	4	4

Table 80 continued.

	YEAR										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
North											
Shore	26	29	14	15	17	56	27	73	6	20	32
P/C Boat	10	14	6	8	17	22	18	43	16	30	35
P/R Boat	214	401	320	518	445	833	738	1,536	695	559	540
TOTAL	250	444	340	541	479	911	783	1,652	717	609	607
Mid											
Shore	94	122	108	78	127	160	136	363	187	135	148
P/C Boat	617	499	179	414	712	274	286	649	349	274	457
P/R Boat	2,833	2,958	1,721	3,246	3,898	4,096	2,461	4,596	3,842	2,517	4,009
TOTAL	3,544	3,579	2,008	3,738	4,737	4,530	2,883	5,608	4,378	2,926	4,614
South											
Shore	61	102	30	26	18	18	13	24	15	9	22
P/C Boat	<1	1	<1	2	1	1	<1	<1	<1	1	<1
P/R Boat	150	105	80	147	147	199	115	185	168	88	35
TOTAL	212	208	111	175	166	218	129	210	184	98	58
All											
Shore	181	253	152	119	162	234	176	460	208	164	202
P/C Boat	628	514	186	424	730	297	305	693	366	305	493
P/R Boat	3,197	3,464	2,121	3,911	4,490	5,128	3,314	6,317	4,705	3,164	4,584
TOTAL	4,006	4,231	2,459	4,454	5,382	5,659	3,795	7,470	5,279	3,632	5,279
PSE (%)	4	4	5	3	4	5	5	4	4	4	4

Table 80 continued.

	YEAR			
	2004	2005	2006	2007
North				
Shore	23	13	11	2
P/C Boat	18	25	16	75
P/R Boat	962	679	816	504
TOTAL	1,003	717	843	581
Mid				
Shore	147	100	81	136
P/C Boat	297	505	208	430
P/R Boat	3,374	3,321	3,766	3,167
TOTAL	3,818	3,926	4,055	3,733
South				
Shore	30	10	17	9
P/C Boat	4	<1	1	16
P/R Boat	77	70	76	106
TOTAL	110	81	94	131
All				
Shore	200	123	109	147
P/C Boat	318	531	225	521
P/R Boat	4,413	4,070	4,658	3,777
TOTAL	4,931	4,724	4,992	4,445
PSE (%)	4	5	5	5

Table 81. Comparison of Vessel Trip Report (VTR) reported landings of summer flounder by Party (VTRPB) and charter (VTRCB) boats, with landings estimated by the MRFSS for the Party/Charter boat (P/C Boat) sector. Data are numeric landings in thousands of fish.

Year	VTRPB	VTRCB	VTR P/C Boat Total	MRFSS P/C Boat Total	Ratio MRFSS to VTR
1995	189	44	233	268	1.15
1996	289	58	347	660	1.90
1997	302	68	370	931	2.52
1998	281	73	354	361	1.02
1999	190	50	240	301	1.25
2000	208	75	283	650	2.30
2001	105	42	147	331	2.25
2002	104	40	144	262	1.82
2003	123	44	167	392	2.35
2004	101	32	133	494	3.71
2005	80	21	101	552	5.47
2006	42	20	62	296	4.77
2007	64	28	92	402	4.37

Table 82. Recreational fishery sampling intensity for summer flounder by subregion. Includes both MRFSS and state agency lengths.

Year	Subregion	Landings (A+B1; mt)	Number of Summer Flounder Measured	mt/100 Lengths
1982	North	1,047	231	453
	Mid	6,492	2,896	224
	South	728	576	126
	TOTAL	8,267	3,703	223
1983	North	600	311	192
	Mid	11,839	4,712	251
	South	248	170	146
	TOTAL	12,687	5,193	244
1984	North	409	168	243
	Mid	7,511	2,195	342
	South	592	283	209
	TOTAL	8,512	2,646	322
1985	North	337	78	432
	Mid	4,936	1,934	255
	South	392	274	143
	TOTAL	5,665	2,286	248
1986	North	2,667	266	1,003
	Mid	4,907	1,808	271
	South	528	288	183
	TOTAL	8,102	2,362	343
1987	North	607	217	280
	Mid	4,823	1,897	254
	South	89	445	20
	TOTAL	5,519	2,559	216

Table 82 continued.

Year	Subregion	Landings (A+B1; mt)	Number of Summer Flounder Measured	mt/100 Lengths
1988	North	323	310	104
	Mid	6,034	2,865	214
	South	277	743	38
	TOTAL	6,634	3,918	172
1989	North	144	107	135
	Mid	1,162	1,582	73
	South	129	358	36
	TOTAL	1,435	2,047	70
1990	North	106	110	96
	Mid	1,985	2,667	74
	South	238	1,293	18
	TOTAL	2,329	4,070	57
1991	North	162	189	86
	Mid	3,343	4,648	72
	South	106	820	13
	TOTAL	3,611	5,657	64
1992	North	196	425	46
	Mid	2,929	4,504	65
	South	117	566	21
	TOTAL	3,242	5,495	59
1993	North	250	338	63
	Mid	3,544	4,174	74
	South	212	995	20
	TOTAL	4,006	5,507	63
1994	North	444	621	75
	Mid	3,579	3,834	90
	South	208	1,467	14
	TOTAL	4,231	5,922	69

Table 82 continued.

Year	Subregion	Landings (A+B1; mt)	Number of Summer Flounder Measured	mt/100 Lengths
1995	North	340	501	68
	Mid	2,008	1,470	137
	South	111	485	23
	TOTAL	2,459	2,456	100
1996	North	541	919	59
	Mid	3,738	3,373	111
	South	175	1,188	15
	TOTAL	4,454	5,480	81
1997	North	480	786	61
	Mid	4,736	2,988	159
	South	166	1,026	16
	TOTAL	5,382	4,800	112
1998	North	911	857	106
	Mid	4,530	3,205	141
	South	218	1,259	17
	TOTAL	5,659	5,321	106
1999	North	783	442	177
	Mid	2,883	1,584	182
	South	129	564	23
	TOTAL	3,795	2,590	147
2000	North	1,652	707	234
	Mid	5,608	1,892	296
	South	210	722	29
	TOTAL	7,470	3,321	225
2001	North	717	351	204
	Mid	4,378	2,963	148
	South	184	933	20
	TOTAL	5,279	4,247	124

Table 82 continued.

Year	Subregion	Landings (A+B1; mt)	Number of Summer Flounder Measured	mt/100 Lengths
2002	North	609	366	166
	Mid	2,925	2,695	109
	South	98	596	16
	TOTAL	3,632	3,657	99
2003	North	607	514	118
	Mid	4,614	3,003	154
	South	58	139	42
	TOTAL	5,279	3,656	144
2004	North	1,003	1,548	65
	Mid	3,818	2,486	154
	South	110	276	40
	TOTAL	4,931	4,310	114
2005	North	717	551	130
	Mid	3,926	1,994	197
	South	81	269	30
	TOTAL	4,724	2,814	168
2006	North	843	987	85
	Mid	4,055	1,423	285
	South	94	281	33
	TOTAL	4,992	2,691	186
2007	North	581	1,209	48
	Mid	3,733	1,863	200
	South	131	291	45
	TOTAL	4,445	3,363	132

Table 83. Estimated recreational landings at age of summer flounder (000s), (catch type A + B1).

Year	AGE									Total
	0	1	2	3	4	5	6	7	8+	
1982	2,750	8,445	3,498	561	215	<1	4	0	0	15,473
1983	2,302	11,612	4,978	1,340	528	220	0	16	0	20,996
1984	2,282	9,198	4,831	1,012	147	5	<1	0	0	17,745
1985	1,002	5,002	4,382	473	148	59	0	0	0	11,066
1986	1,169	6,404	2,784	1,088	129	15	28	0	0	11,621
1987	466	4,674	2,083	448	182	1	5	0	0	7,865
1988	429	5,742	3,311	387	88	3	0	0	0	9,960
1989	74	539	946	135	16	2	5	0	0	1,717
1990	353	2,770	529	118	23	<1	1	0	0	3,794
1991	86	3,611	2,251	79	40	1	0	0	0	6,068
1992	82	3,183	1,620	90	<1	27	0	0	0	5,002
1993	79	3,929	2,323	159	<1	2	0	0	0	6,494
1994	790	3,998	1,698	184	28	1	4	0	0	6,703
1995	231	1,510	1,426	116	26	16	1	0	0	3,326
1996	116	2,935	3,468	354	123	1	0	0	0	6,997
1997	4	1,148	4,188	1,465	274	88	0	0	0	7,167
1998	0	768	2,915	2,714	515	63	4	0	0	6,979
1999	0	201	1,982	1,520	325	60	19	0	0	4,107
2000	0	578	4,121	2,284	643	170	0	0	0	7,801
2001	0	838	1,975	1,781	539	121	36	4	0	5,294
2002	1	194	1,327	1,204	421	92	20	1	2	3,262
2003	0	237	1,674	1,751	648	171	62	16	0	4,559
2004	24	213	1,554	1,720	681	220	120	25	0	4,557
2005	3	184	1,197	1,539	755	238	99	60	35	4,110
2006	4	72	1,412	1,319	729	317	135	40	24	4,052
2007	2	70	577	1,580	714	286	103	33	28	3,393

Table 84. Estimated summer flounder recreational landings (catch types A + B1), live discard (catch type B2), and total catch (catch types A + B1 + B2) in numbers (000s), Proportional Standard Error (PSE) of the total catch estimate, and live discard (catch type B2) as a proportion of total catch. Catch type B2 uses estimates for NC from NCDMF (C.Batsavage, pers. comm)

Year	Numbers (000s)			PSE (%)	B2 / (A+B1+B2)
	A+B1	B2	A+B1+B2		
1982	15,473	8,084	23,557	59	0.343
1983	20,996	11,026	32,022	16	0.344
1984	17,475	12,307	29,782	11	0.413
1985	11,066	2,460	13,526	15	0.182
1986	11,621	13,655	25,276	8	0.540
1987	7,865	13,472	21,337	6	0.631
1988	9,960	7,201	17,161	6	0.420
1989	1,717	908	2,625	10	0.346
1990	3,794	5,283	9,077	5	0.582
1991	6,068	9,870	15,938	5	0.619
1992	5,002	7,540	12,542	5	0.601
1993	6,494	17,741	24,235	5	0.732
1994	6,703	12,332	19,035	5	0.648
1995	3,326	13,568	16,894	5	0.803
1996	6,997	12,987	19,984	4	0.650
1997	7,167	13,854	21,021	4	0.659
1998	6,979	16,960	23,939	4	0.708
1999	4,107	17,833	21,940	5	0.813
2000	7,801	18,643	26,444	4	0.705
2001	5,294	24,049	29,343	3	0.820
2002	3,262	13,386	16,648	3	0.804
2003	4,559	15,776	20,335	4	0.776
2004	4,557	17,009	21,566	4	0.789
2005	4,110	23,135	27,245	5	0.849
2006	4,052	17,516	21,568	5	0.812
2007	3,393	20,428	23,821	5	0.858

Table 85. Recreational fishery sample size for summer flounder discard mortality assumption. Includes MRFSS landed fish sampling, American Littoral Society (ALS) reported released lengths, CT Volunteer Angler Survey (CTVAS) reported released lengths, MADMF party boat sampling (MADMF), NYDEC Party Boat Survey sampling (NYPBS), MDDNR Volunteer Angler Logs (MDVAL), and MRF For-Hire Survey (MRF FHS) reported released lengths. Number of MRFSS lengths is for landed fish measured that were less than the state or federal minimum landed size, and assumed to be indicative of the length frequency of the discarded catch. This length frequency was used to characterize the length frequency of the released catch. All other sources of released lengths were used to verify this assumption. In 2002 and 2003, samples of discarded summer flounder from CTVAS and NYPBS used to directly characterize the discard in those states. The MRF FHS began sampling in 2005. B2 mt estimates use NC from NCDMF (C. Batsavage, pers. comm.)

Year	Source	Discard Mortality (B2; mt)	Number of Lengths	mt/100 Lengths
1982	MRFSS		2,048	
	ALS		1	
	Total	296	2,049	14
1983	MRFSS		2,683	
	ALS			
	Total	376	2,683	14
1984	MRFSS		1,521	
	ALS		1,134	
	Total	415	2,683	15
1985	MRFSS		1,032	
	ALS		695	
	Total	92	1,727	5
1986	MRFSS		976	
	ALS		1,445	
	Total	578	2,421	24
1987	MRFSS		1,164	
	ALS		1,496	
	Total	522	2,660	20
1988	MRFSS		1,065	
	ALS		1,640	
	Total	341	2,705	13
1989	MRFSS		448	
	ALS		171	
	Total	45	619	7

Table 85 continued.

Year	Source	Discard Mortality (B2; mt)	Number of Lengths	mt/100 Lengths
1990	MRFSS		1,588	
	ALS		1,318	
	Total	234	2,906	8
1991	MRFSS	429	2,230	
	ALS		2,126	
	Total	429	4,356	10
1992	MRFSS		1,401	
	ALS		1,807	
	Total	344	3,208	11
1993	MRFSS		966	
	ALS		3,923	
	Total	910	4,889	19
1994	MRFSS		1,079	
	ALS		3,061	
	Total	687	4,140	17
1995	MRFSS		267	
	ALS		2,307	
	Total	753	2,574	29
1996	MRFSS		639	
	ALS		2,383	
	Total	681	3,022	23
1997	MRFSS		221	
	ALS		2,468	
	Total	556	2,689	21
1998	MRFSS		1,083	
	ALS		3,015	
	Total	734	4,098	18
1999	MRFSS		429	
	ALS		3,688	
	Total	711	4,117	17

Table 85 continued.

Year	Source	Discard Mortality (B2; mt)	Number of Lengths	mt/100 Lengths
2000	MRFSS		421	
	ALS		5,962	
	CTVAS		2,893	
	NYPBS		681	
	Total	952	9,957	10
2001	MRFSS		637	
	ALS		3,453	
	CTVAS		999	
	NYPBS		834	
	MDVAL		2,316	
	Total	1,274	8,239	15
2002	MRFSS		721	
	CTVAS		1,526	
	ALS		2,931	
	NYPBS		1,840	
	MADMF		12	
	Total	777	7,030	11
2003	MRFSS		215	
	ALS		2,466	
	CTVAS		1,407	
	NYPBS		2,167	
	Total	882	6,255	14
2004	MRFSS		321	
	ALS		2,153	
	CTVAS		661	
	NYPBS		1,222	
	Total	1,034	4,357	24
2005	MRFSS		142	
	ALS		3,398	
	CTVAS		1,199	
	MRF FHS		3,210	
	Total	999	7,949	13

Table 85 continued.

Year	Source	Discard Mortality (B2; mt)	Number of Lengths	mt/100 Lengths
2006	MRFSS		180	
	ALS		3,104	
	CTVAS		1,124	
	MDVAL		2,944	
	MRF FHS		2,924	
	Total		795	10,276
2007	MRFSS		266	
	ALS		4,072	
	CTVAS		1,038	
	MRF FHS		3,364	
	Total		1,130	8,740

Table 86. Estimated recreational fishery discard at age of summer flounder (catch type B2). NC estimates by NCMDF. Discards during 1982-1996 allocated to age groups in same relative proportions as ages 0 and 1 in the subregional catch. Discards during 1997-2000 allocated to age groups in same relative proportions as fish less than the annual EEZ minimum size in the subregional catch. Discards in 2001-2007 allocated to age groups either in the same relative proportion as fish less than the minimum size in the respective state catch, and as indicate by state agency or ALS sampling of the released catch. All years assume 10% release mortality.

Year	Numbers at age (000s)					Metric Tons at age				
	0	1	2	3+	Total	0	1	2	3+	Total
1982	172	636	0	0	808	39	257	0	0	296
1983	175	932	0	0	1,107	31	345	0	0	376
1984	210	1,020	0	0	1,230	43	372	0	0	415
1985	40	206	0	0	246	10	82	0	0	92
1986	150	1,217	0	0	1,367	34	544	0	0	578
1987	106	1,210	0	0	1,316	24	498	0	0	522
1988	55	665	0	0	720	16	325	0	0	341
1989	13	83	0	0	96	3	42	0	0	45
1990	60	470	0	0	530	18	216	0	0	234
1991	24	977	0	0	1,001	6	423	0	0	429
1992	17	674	0	0	691	4	340	0	0	344
1993	34	1,740	0	0	1,774	8	902	0	0	910
1994	216	1,017	0	0	1,233	94	593	0	0	687
1995	189	1,168	0	0	1,357	81	672	0	0	753
1996	50	1,249	0	0	1,299	17	664	0	0	681
1997	24	820	522	23	1,389	5	323	218	10	556
1998	0	685	875	136	1,696	0	274	396	64	734
1999	84	587	987	125	1,783	11	222	421	57	711
2000	0	587	1,097	180	1,864	0	281	574	97	952
2001	0	1,261	888	256	2,405	0	595	506	173	1,274
2002	75	565	569	198	1,407	15	237	378	147	777
2003	49	785	599	208	1,641	8	330	386	158	882
2004	85	508	794	314	1,701	22	231	538	243	1,034
2005	254	1,153	739	168	2,314	53	413	406	127	999
2006	155	552	887	160	1,754	24	192	464	115	795
2007	101	667	674	586	2,028	17	224	400	489	1,130

Table 87. Mean weight (kg) at age of summer flounder catch in the recreational fishery.

	Age									
	0	1	2	3	4	5	6	7	8+	All
1982	0.224	0.404	0.570	1.326	1.846	1.885	2.978	0.000	0.000	0.459
1983	0.176	0.370	0.633	0.927	1.194	1.396	0.000	0.000	0.000	0.472
1984	0.205	0.364	0.620	0.968	1.771	2.197	4.166	0.000	0.000	0.453
1985	0.242	0.398	0.626	1.101	1.748	2.441	0.000	0.000	0.000	0.530
1986	0.225	0.447	0.751	1.290	1.740	2.719	3.482	5.960	0.000	0.584
1987	0.230	0.412	0.761	1.340	1.839	3.050	4.808	4.640	0.000	0.559
1988	0.293	0.488	0.707	1.114	1.921	2.316	0.000	0.000	0.000	0.582
1989	0.263	0.512	0.813	1.232	1.784	3.333	1.576	0.000	0.000	0.728
1990	0.303	0.460	0.968	1.440	1.677	2.895	6.456	0.000	0.000	0.542
1991	0.273	0.433	0.670	1.306	1.372	2.450	0.000	0.000	0.000	0.521
1992	0.225	0.504	0.717	1.617	2.279	3.340	0.000	0.000	0.000	0.591
1993	0.246	0.518	0.715	1.871	2.442	3.027	0.000	0.000	0.000	0.597
1994	0.436	0.583	0.694	1.438	1.923	2.831	3.897	0.000	0.000	0.615
1995	0.426	0.575	0.816	1.457	2.603	2.930	3.537	0.000	0.000	0.677
1996	0.343	0.532	0.622	1.338	1.341	2.361	0.000	0.000	0.000	0.612
1997	0.225	0.450	0.648	0.902	1.153	2.377	0.000	0.000	0.000	0.679
1998	0.000	0.466	0.618	0.813	1.257	2.508	0.000	0.000	0.000	0.708
1999	0.127	0.411	0.613	0.908	1.549	2.330	2.604	0.000	0.000	0.737
2000	0.000	0.514	0.710	0.952	1.307	2.388	3.481	0.000	0.000	0.819
2001	0.000	0.531	0.783	0.993	1.515	2.089	2.291	3.738	0.000	0.852
2002	0.206	0.437	0.827	1.043	1.505	2.287	2.604	3.200	4.213	0.918
2003	0.169	0.480	0.840	1.097	1.585	2.018	2.807	2.714	0.000	0.993
2004	0.331	0.507	0.792	1.006	1.409	1.905	2.316	3.002	0.000	0.965
2005	0.208	0.387	0.747	1.096	1.405	1.756	2.330	2.357	2.341	0.903
2006	0.156	0.379	0.728	1.050	1.337	1.692	2.266	3.310	3.250	0.950
2007	0.170	0.351	0.688	1.055	1.430	1.797	2.148	2.878	3.522	0.930

Table 88. Total catch at age of summer flounder (000s), ME-NC.

Year	Age										Total
	0	1	2	3	4	5	6	7	8	9+	
1982	5,344	19,423	10,149	935	328	116	67	26	4	0	36,392
1983	4,925	28,441	10,911	2,181	693	323	16	36	5	2	47,533
1984	4,802	26,582	15,454	3,180	829	95	4	5	1	4	50,956
1985	2,078	14,623	17,979	1,767	496	252	30	5	2	1	37,233
1986	1,942	17,140	11,055	3,782	316	140	58	12	3	0	34,448
1987	1,137	17,212	10,838	1,648	544	25	29	33	11	0	31,477
1988	789	20,440	14,528	2,138	642	121	19	15	6	0	38,698
1989	959	4,789	7,308	1,692	353	55	9	3	1	0	15,169
1990	1,856	8,808	2,187	995	221	30	8	2	1	0	14,108
1991	1,001	12,145	7,152	742	217	32	3	1	0	0	21,294
1992	1,369	11,213	6,009	1,128	150	70	2	1	0	0	19,942
1993	1,305	12,024	5,943	586	75	46	19	2	1	0	20,001
1994	1,702	10,648	7,145	995	207	27	13	0	5	0	20,742
1995	607	5,833	7,303	1,238	397	77	5	1	0	0	15,461
1996	189	6,803	9,082	1,767	411	72	16	1	3	0	18,344
1997	36	2,614	8,078	3,152	553	160	10	4	0	0	14,607
1998	45	2,370	6,422	5,249	980	138	19	1	0	0	15,224
1999	181	2,204	6,294	4,177	1,062	308	51	11	0	0	14,288
2000	22	1,591	8,010	4,805	1,437	344	70	16	8	2	16,305
2001	11	2,983	4,779	3,846	1,221	339	113	25	4	3	13,324
2002	89	1,368	5,396	3,978	1,264	295	125	13	2	1	12,531
2003	51	1,799	4,977	4,066	1,581	560	232	66	17	3	13,352
2004	110	1,071	5,699	4,708	1,907	768	304	111	34	10	14,722
2005	261	1,901	3,876	4,212	2,265	1,069	517	264	150	77	14,592
2006	163	1,066	5,137	3,284	1,796	869	373	123	42	14	12,867
2007	112	938	2,213	4,217	1,645	670	284	106	43	25	10,253

Table 89. Mean length (cm) at age of summer flounder catch, ME-NC.

	Age										ALL
	0	1	2	3	4	5	6	7	8	9+	
1982	29.4	34.5	38.8	50.7	55.3	61.0	60.7	68.0	71.2	0.0	35.7
1983	28.8	34.5	40.9	46.5	48.8	51.6	60.7	60.9	69.3	72.0	36.3
1984	29.4	33.8	39.1	45.9	51.3	57.9	66.8	68.4	74.0	70.7	36.1
1985	30.6	34.8	38.8	46.8	53.9	58.6	61.5	74.5	73.3	75.0	37.5
1986	29.7	35.6	39.9	47.5	54.0	56.2	65.8	66.4	72.8	0.0	38.2
1987	29.9	35.3	39.7	46.9	55.8	63.3	65.9	63.2	73.5	0.0	37.7
1988	32.4	35.8	39.1	46.6	53.1	60.2	69.6	68.5	72.7	0.0	37.9
1989	27.1	35.7	40.8	45.5	50.6	58.5	59.1	63.1	59.0	0.0	39.1
1990	29.6	35.1	41.9	46.8	51.4	57.4	66.4	71.7	75.2	0.0	36.6
1991	24.8	34.5	40.4	47.1	54.3	61.0	61.7	68.1	0.0	0.0	36.7
1992	29.6	36.0	41.2	46.9	49.7	61.0	58.8	72.2	0.0	0.0	37.9
1993	30.3	36.6	40.7	50.6	53.1	54.7	62.6	70.6	75.5	0.0	37.9
1994	32.3	37.2	39.3	49.7	57.2	63.4	66.1	82.6	68.5	0.0	38.4
1995	33.8	37.1	39.9	44.9	52.4	62.2	68.8	71.9	0.0	0.0	39.4
1996	32.7	36.9	38.2	45.7	51.4	54.4	58.5	63.0	62.1	0.0	38.8
1997	28.6	36.1	39.7	43.4	48.3	58.1	60.8	66.3	0.0	0.0	40.4
1998	28.7	37.1	40.0	43.4	49.5	59.3	48.0	71.1	0.0	0.0	41.5
1999	25.3	33.6	38.8	43.9	50.7	55.5	62.2	67.1	69.0	0.0	40.8
2000	18.1	37.2	40.9	44.2	49.3	58.1	60.9	61.8	66.1	67.7	42.8
2001	21.1	37.8	41.9	45.0	50.4	57.2	60.4	66.4	68.9	73.8	43.3
2002	28.5	36.4	41.6	44.7	49.6	57.0	61.3	68.0	6.6	64.0	43.4
2003	26.7	36.7	42.0	45.9	51.7	56.9	62.1	65.0	67.2	69.1	44.7
2004	31.6	37.2	41.6	45.2	49.8	53.9	59.1	64.0	64.8	73.6	44.6
2005	28.5	35.1	40.7	44.4	47.8	51.5	55.2	57.4	58.7	66.1	43.8
2006	26.0	35.6	40.5	44.8	48.7	52.7	57.7	62.7	64.5	70.7	43.8
2007	26.0	34.5	40.0	45.0	49.1	53.5	57.2	60.3	62.4	69.4	44.5

Table 90. Mean weight (kg) at age of summer flounder catch, ME-NC.

	Age										ALL
	0	1	2	3	4	5	6	7	8	9+	
1982	0.255	0.419	0.616	1.447	1.907	2.795	2.673	3.758	4.408	0.000	0.504
1983	0.243	0.419	0.716	1.075	1.257	1.495	2.572	2.594	3.849	4.030	0.522
1984	0.251	0.398	0.632	1.046	1.500	2.163	3.302	3.620	4.640	4.030	0.518
1985	0.290	0.429	0.613	1.109	1.726	2.297	2.671	4.682	4.780	4.800	0.575
1986	0.256	0.453	0.668	1.160	1.739	1.994	3.311	4.000	4.432	0.000	0.613
1987	0.263	0.446	0.651	1.140	1.941	2.862	3.377	3.314	4.140	0.000	0.581
1988	0.319	0.462	0.624	1.130	1.738	2.485	3.888	3.545	4.316	0.000	0.588
1989	0.207	0.459	0.723	1.044	1.479	2.249	2.399	2.861	2.251	0.000	0.668
1990	0.250	0.429	0.810	1.169	1.538	2.121	3.461	3.951	5.029	0.000	0.540
1991	0.140	0.404	0.702	1.186	1.811	2.527	2.837	3.586	0.000	0.000	0.537
1992	0.246	0.467	0.749	1.222	1.390	2.696	2.302	4.479	0.000	0.000	0.595
1993	0.264	0.482	0.700	1.475	1.679	1.859	2.816	4.136	0.000	0.000	0.572
1994	0.346	0.524	0.631	1.333	2.063	2.494	3.010	5.780	2.233	0.000	0.657
1995	0.376	0.536	0.710	1.094	1.601	2.529	3.784	3.825	0.000	0.000	0.748
1996	0.329	0.503	0.569	1.077	1.548	1.958	2.546	3.200	3.164	0.000	0.620
1997	0.215	0.452	0.639	0.866	1.233	2.252	2.572	3.429	0.000	0.000	0.696
1998	0.259	0.522	0.653	0.859	1.321	2.410	2.000	3.983	0.000	0.000	0.763
1999	0.143	0.372	0.594	0.895	1.439	1.998	2.716	3.496	3.904	0.000	0.754
2000	0.066	0.507	0.691	0.924	1.330	2.219	2.599	2.728	3.359	3.532	0.847
2001	0.114	0.542	0.765	0.968	1.449	2.145	2.597	3.459	3.915	4.935	0.899
2002	0.209	0.481	0.739	0.954	1.372	2.101	2.666	3.728	4.232	2.983	0.902
2003	0.144	0.499	0.761	1.030	1.527	2.072	2.764	3.175	3.570	3.912	1.001
2004	0.304	0.516	0.737	0.969	1.350	1.757	2.357	3.024	3.176	3.736	0.983
2005	0.201	0.433	0.691	0.932	1.193	1.508	1.895	2.155	2.299	2.213	0.952
2006	0.158	0.453	0.682	0.961	1.264	1.645	2.184	2.943	3.135	3.787	0.950
2007	0.181	0.388	0.683	0.949	1.276	1.694	2.119	2.540	2.954	3.734	0.998

Table 91. Commercial and recreational fishery landings, estimated discard, and total catch statistics (metric tons) as used in the assessment of summer flounder, Maine to North Carolina.

Year	Commercial			Recreational			Total		
	Landings	Discard	Catch	Landings	Discard	Catch	Landings	Discard	Catch
1982	10.400	n/a	10.400	8.267	296	8.563	18.667	296	18.963
1983	13.403	n/a	13.403	12.687	376	13.063	26.090	376	26.466
1984	17.130	n/a	17.130	8.512	415	8.927	25.642	415	26.057
1985	14.675	n/a	14.675	5.665	92	5.757	20.340	92	20.432
1986	12.186	n/a	12.186	8.102	578	8.680	20.288	578	20.866
1987	12.271	n/a	12.271	5.519	522	6.041	17.790	522	18.312
1988	14.686	n/a	14.686	6.634	341	6.975	21.320	341	21.661
1989	8.125	709	8.834	1.435	45	1.480	9.560	754	10.314
1990	4.199	1.214	5.413	2.329	234	2.563	6.528	1.448	7.976
1991	6.224	1.052	7.276	3.611	429	4.040	9.835	1.481	11.316
1992	7.529	690	8.219	3.242	344	3.586	10.771	1.034	11.805
1993	5.715	846	6.561	4.006	910	4.916	9.721	1.756	11.477
1994	6.588	906	7.494	4.231	687	4.918	10.819	1.593	12.412
1995	6.977	308	7.285	2.459	752	3.211	9.436	1.060	10.496
1996	5.861	463	6.324	4.454	681	5.135	10.315	1.144	11.459
1997	3.994	326	4.320	5.382	556	5.938	9.376	882	10.258
1998	5.076	389	5.465	5.659	734	6.393	10.735	1.123	11.858
1999	4.820	1.548	6.368	3.795	711	4.506	8.615	2.259	10.874
2000	5.085	726	5.811	7.470	952	8.422	12.555	1.678	14.233
2001	4.970	468	5.438	5.279	1.274	6.553	10.249	1.742	11.991
2002	6.573	449	7.022	3.632	777	4.409	10.205	1.226	11.431
2003	6.450	528	6.978	5.279	882	6.161	11.729	1.410	13.139
2004	8.228	244	8.472	4.831	1.034	5.865	13.059	1.278	14.337
2005	7.826	230	8.056	4.724	999	5.723	12.550	1.229	13.779
2006	6.262	288	6.550	4.992	795	5.787	11.254	1.083	12.337
2007	4.489	304	4.793	4.445	1.130	5.575	8.934	1.434	10.368
Mean	8.210	632	8.665	5.288	617	5.904	13.498	1.072	14.570

Table 92. NEFSC research trawl survey indices of abundance. Indices are stratified mean numbers (n) and weight (kg) per tow. Spring indices are for offshore strata 1-12 61-76; autumn indices are for offshore strata 1-2, 5-6, 9-10, 61, 65, 69, and 73. Winter indices (1992-2007) are for NEFSC offshore strata 1-3, 5-7, 9-11, 13-14, 16-17, 61-63, 65-67, 69-71, and 73-75. n/a = not available due to incomplete coverage (spring) or end of survey (winter). Note that door and vessel conversion factors are not significant; gear conversion factors have not been included due to limited sample size and extreme violation of underlying assumptions in experimental work.

Year	Spring (n)	Spring (kg)	Autumn (n)	Autumn (kg)
1967	n/a	n/a	1.35	1.25
1968	0.15	0.16	1.10	1.00
1969	0.19	0.16	0.59	0.61
1970	0.09	0.09	0.15	0.13
1971	0.22	0.28	0.42	0.27
1972	0.47	0.21	0.39	0.27
1973	0.76	0.54	0.87	0.63
1974	1.37	1.26	1.70	1.86
1975	1.97	1.61	3.00	2.48
1976	2.83	2.00	1.14	0.85
1977	2.84	1.74	2.17	1.75
1978	2.55	1.40	0.32	0.40
1979	0.40	0.35	1.17	0.94
1980	1.30	0.78	0.94	0.57
1981	1.50	0.80	0.91	0.72
1982	2.27	1.11	1.57	0.90
1983	0.95	0.53	0.90	0.47
1984	0.66	0.38	0.99	0.65
1985	2.38	1.20	1.24	0.87
1986	2.14	0.82	0.68	0.45
1987	0.93	0.38	0.26	0.28
1988	1.50	0.68	0.11	0.11
1989	0.32	0.24	0.20	0.08
1990	0.72	0.27	0.27	0.19
1991	1.08	0.35	0.51	0.17

Table 92 continued.

Year	Winter (n)	Winter (kg)	Spring (n)	Spring (kg)	Autumn (n)	Autumn (kg)
1992	12.30	4.90	1.20	0.46	0.85	0.49
1993	13.60	5.50	1.27	0.48	0.11	0.04
1994	12.05	6.03	0.93	0.46	0.60	0.35
1995	10.93	4.81	1.09	0.46	1.13	0.83
1996	31.25	12.35	1.76	0.67	0.71	0.45
1997	10.28	5.54	1.06	0.61	1.32	0.92
1998	7.76	5.13	1.19	0.76	2.32	1.58
1999	11.06	7.99	1.60	1.01	2.42	1.66
2000	15.76	12.59	2.14	1.70	1.90	1.82
2001	18.59	15.68	2.69	2.16	1.56	1.55
2002	22.68	18.43	2.47	2.29	1.32	1.40
2003	35.62	27.48	2.91	2.42	2.00	1.93
2004	17.77	15.25	3.03	2.43	3.00	3.06
2005	12.89	10.32	1.81	1.59	1.57	1.83
2006	21.04	15.93	1.77	1.34	2.10	1.79
2007	16.83	12.89	3.25	3.17	2.21	2.45
2008	n/a	n/a	1.41	1.39	n/a	n/a

Table 93. NEFSC spring trawl survey (offshore strata 1-12, 61-76) stratified mean number of summer flounder per tow at age.

Year	Age										ALL	
	1	2	3	4	5	6	7	8	9	10+		
1976	0.03	1.77	0.71	0.29	0.01	0.01	0.01					2.83
1977	0.61	1.31	0.71	0.10	0.09	0.01		0.01				2.84
1978	0.68	0.93	0.64	0.19	0.04	0.03	0.03			0.01		2.55
1979	0.06	0.18	0.08	0.04	0.03			0.01				0.40
1980	0.01	0.70	0.31	0.14	0.02	0.06	0.03	0.02		0.01		1.30
1981	0.60	0.54	0.17	0.08	0.05	0.03	0.02	0.01				1.50
1982	0.70	1.43	0.12	0.02								2.27
1983	0.32	0.39	0.19	0.03	0.01				0.01			0.95
1984	0.17	0.33	0.09	0.05		0.01	0.01					0.66
1985	0.55	1.56	0.21	0.04	0.02							2.38
1986	1.48	0.43	0.20	0.02	0.01							2.14
1987	0.47	0.43	0.02	0.01								0.93
1988	0.60	0.81	0.07	0.02								1.50
1989	0.06	0.23	0.02	0.01								0.32
1990	0.63	0.03	0.06									0.72
1991	0.79	0.27		0.02								1.08
1992	0.77	0.41	0.01		0.01							1.20
1993	0.73	0.50	0.04									1.27
1994	0.35	0.53	0.04	0.01								0.93
1995	0.79	0.27	0.02				0.01					1.09
1996	1.08	0.56	0.12									1.76
1997	0.29	0.67	0.09	0.01								1.06
1998	0.27	0.52	0.32	0.06	0.01	0.01						1.19
1999	0.22	0.74	0.48	0.13	0.02	0.01						1.60
2000	0.19	1.03	0.63	0.12	0.15	0.02						2.14
2001	0.48	0.89	1.02	0.20	0.05	0.04	0.01					2.69
2002	0.34	0.89	0.74	0.31	0.10	0.03	0.05	0.01				2.47
2003	0.54	1.29	0.59	0.29	0.13	0.06	0.01	0.01				2.91
2004	0.30	1.45	0.85	0.27	0.05	0.06	0.04					3.03
2005	0.26	0.65	0.58	0.15	0.10	0.05	0.02		0.001			1.81
2006	0.04	1.04	0.24	0.25	0.09	0.06	0.02	0.01		0.018		1.77
2007	0.24	0.52	1.46	0.57	0.18	0.13	0.07	0.04	0.010	0.030		3.25
2008	0.25	0.34	0.31	0.29	0.11	0.09	0.02					1.41
Mean	0.45	0.72	0.35	0.13	0.06	0.04	0.02	0.01	0.01	0.02		1.70

Table 94. NEFSC spring trawl survey (offshore strata 1-12, 61-76) summer flounder mean length (cm) at age.

Year	Age											
	1	2	3	4	5	6	7	8	9	10	11	12
1976	25.9	36.0	43.1	53.5	60.8	70.0	72.0					
1977	25.2	35.0	43.4	51.7	59.6	63.0		74.0				
1978	27.3	34.8	40.9	46.9	53.3	59.5	64.0				65.0	75.0
1979	25.1	37.0	43.2	51.5	54.8			77.0				
1980	29.0	28.8	38.1	44.2	51.1	53.0	67.7	77.0		81.0		
1981	25.3	32.2	39.8	48.9	55.7	62.9	67.8	74.0				
1982	28.6	36.2	47.3	46.7								
1983	25.5	37.7	43.4	53.3	61.4				77.0			
1984	27.1	33.9	41.8	56.7		63.0	56.0					
1985	26.8	36.1	42.8	57.2	54.5							
1986	28.6	36.3	46.0	56.0	63.0							
1987	27.8	37.7	47.3	58.0								
1988	27.7	36.3	47.8	45.0								
1989	30.4	39.2	51.5	60.0								
1990	28.3	47.7	48.6									
1991	27.0	38.8		42.1								
1992	27.9	37.7	57.0		72.0							
1993	27.5	37.9	51.9									
1994	33.0	36.8	48.0	53.1								
1995	29.4	40.0	46.4				72.0					
1996	29.8	36.2	47.2									
1997	29.4	38.3	49.4	54.1								
1998	27.6	39.1	42.7	50.5	50.0	60.0						
1999	28.5	35.8	42.9	49.1	57.7	64.0						
2000	29.5	37.9	44.3	49.4	55.4	60.5						
2001	29.6	39.1	44.9	53.4	60.5	63.8	55.0					
2002	29.7	39.3	45.8	52.7	58.1	63.5	62.1	66.0	54.0	68.0		
2003	32.4	39.3	46.5	51.4	57.5	65.2	51.0	65.0				
2004	29.5	37.6	46.1	50.4	56.9	61.9	63.3					
2005	29.2	39.1	45.1	50.9	55.0	58.3	71.3				73.0	
2006	28.3	36.3	42.1	47.6	51.8	54.0	57.0	63.0		62.0	66.0	
2007	28.3	38.7	43.0	48.2	55.2	53.9	60.4	65.6	61.0	69.4		63.0
2008	30.7	37.3	45.1	49.0	55.9	59.6	57.9					
Mean	28.4	37.3	45.4	51.1	57.2	60.9	62.7	70.2	64.0	70.1	68.0	69.0

Table 95. NEFSC autumn trawl survey (inshore strata 1-61, offshore strata <= 55 m (1,5,9,61,65,69,73)) mean number of summer flounder per tow at age.

Year	Age								ALL	
	0	1	2	3	4	5	6	7+		
1982	0.55	1.52	0.40	0.03						2.50
1983	0.96	1.46	0.34	0.12	0.01	0.01				2.90
1984	0.18	1.39	0.43	0.07	0.01	0.01	<0.01			2.09
1985	0.59	0.80	0.46	0.05		0.02				1.92
1986	0.39	0.83	0.11	0.11		<0.01				1.44
1987	0.07	0.58	0.20	0.03	0.02					0.90
1988	0.06	0.62	0.18	0.03						0.89
1989	0.31	0.21	0.05							0.57
1990	0.44	0.38	0.03	0.04		<0.01				0.89
1991	0.76	0.84	0.09		0.01	<0.01	<0.01			1.70
1992	0.99	1.04	0.25	0.03	0.01	<0.01				2.32
1993	0.23	0.80	0.03	0.01			<0.01			1.07
1994	0.75	0.67	0.09	0.01	0.01					1.53
1995	0.93	1.16	0.28	0.02	0.01					2.40
1996	0.11	1.24	0.57	0.04						1.96
1997	0.17	1.29	1.14	0.29	0.02	0.01	0.01	<0.01		2.93
1998	0.38	2.13	1.63	0.33	0.04	0.01				4.52
1999	0.21	1.73	1.49	0.31	0.04	0.01				3.79
2000	0.22	1.20	1.22	0.40	0.15	0.06	0.03	0.04		3.32
2001	0.12	1.36	0.93	0.37	0.11	0.10		0.01		3.00
2002	0.06	1.17	0.86	0.35	0.11	0.03	0.03	0.02		2.63
2003	0.18	1.31	1.03	0.25	0.10	0.03	0.07	0.01		2.98
2004	0.36	1.49	1.37	0.66	0.19	0.07	0.06	0.04		4.24
2005	0.16	1.14	0.54	0.47	0.18	0.10	0.13	0.03		2.75
2006	0.31	0.72	1.22	0.35	0.17	0.06	0.07	0.02		2.91
2007	0.12	0.84	0.91	0.96	0.31	0.09	0.09	0.04		3.36
Mean	0.37	1.07	0.61	0.22	0.08	0.04	0.05	0.02	0.0	2.37

Table 96. NEFSC autumn trawl survey (inshore strata 1-61, offshore strata <= 55 m (1,5,9,61,65,69,73)) summer flounder mean length (cm) at age.

Year	Age							
	0	1	2	3	4	5	6	7+
1982	28.2	35.1	43.3	47.1				
1983	24.5	33.5	42.7	52.3	60.0	58.0		
1984	23.5	33.6	41.1	46.5	62.6	65.0	70.0	
1985	25.5	35.4	43.1	53.0		63.0		
1986	23.1	35.7	40.8	53.5		57.0		
1987	27.4	34.4	46.0	53.6	47.7			
1988	30.1	35.9	43.4	61.7				
1989	25.8	35.8	48.2	60.0				
1990	24.8	36.0	45.2	54.9	60.0	68.0		
1991	23.2	34.7	43.7	59.0	61.2	67.0	69.0	
1992	25.3	34.4	42.7	51.3	58.8	68.0		
1993	29.9	35.1	44.0	58.1	59.0		70.0	
1994	27.5	38.0	44.3	61.5	57.0			
1995	26.5	36.7	47.4	59.0	65.0			
1996	26.6	35.4	41.6	56.1				
1997	28.4	35.1	40.3	46.5	51.7	59.3	56.0	63.0
1998	24.0	34.7	42.6	50.2	58.2	68.6		
1999	24.1	34.7	40.0	48.5	55.6	56.8		
2000	25.2	35.7	42.1	48.6	53.5	59.9	68.0	66.5
2001	21.8	36.3	42.6	50.0	54.0	62.1		67.0
2002	25.4	36.8	43.8	49.5	55.3	61.4	67.9	69.9
2003	23.2	37.0	43.4	51.8	56.8	59.5	58.5	72.0
2004	23.9	36.8	43.5	48.4	56.2	59.4	60.7	71.2
2005	28.8	34.2	42.2	47.5	51.6	56.4	63.5	63.8
2006	21.5	35.9	41.1	48.1	52.9	55.2	57.6	63.5
2007	22.7	34.2	41.9	46.4	52.4	55.1	58.7	71.0
Mean	25.4	35.4	43.1	52.4	56.5	61.1	63.6	67.5

Table 97. NEFSC Winter trawl survey (offshore strata from 27-185 meters (15-100 fathoms): 1-3, 5-7, 9-11, 13-14, 16-17, 61-63, 65-67, 69-71, 73-75; Southern Georges Bank to Cape Hatteras): mean number and mean weight (kg) per tow.

Year	Stratified mean number per tow	Coefficient of variation	Stratified mean weight (kg) per tow	Coefficient of variation
1992	12.30	15.6	4.90	15.4
1993	13.60	15.2	5.50	11.9
1994	12.05	17.8	6.03	16.1
1995	10.93	12.0	4.81	11.6
1996	31.25	24.2	12.35	22.0
1997	10.28	24.0	5.54	16.6
1998	7.76	20.7	5.13	16.6
1999	11.06	13.3	7.99	11.4
2000	15.76	13.0	12.59	12.8
2001	18.59	11.4	15.68	13.2
2002	22.55	15.6	18.71	15.7
2003	35.62	18.7	27.48	19.1
2004	17.77	13.9	15.25	14.6
2005	12.89	14.6	10.32	20.0
2006	21.04	13.9	15.93	13.6
2007	16.83	12.8	12.89	14.7

Table 98. NEFSC Winter trawl survey (offshore strata from 27-185 meters (15-100 fathoms): 1-3, 5-7, 9-11, 13-14, 16-17, 61-63, 65-67, 69-71, 73-75; Southern Georges Bank to Cape Hatteras): mean number at age per tow.

Year	Age												Total	
	1	2	3	4	5	6	7	8	9	10	11	12+		
1992	7.15	4.74	0.33	0.04	0.01	0.03								12.29
1993	6.50	6.70	0.31	0.05	0.02	0.02								13.60
1994	3.76	7.20	0.82	0.26			0.01							12.05
1995	6.07	4.59	0.25	0.02										10.93
1996	22.17	8.33	0.60	0.12	0.03									31.25
1997	3.86	4.80	1.04	0.43	0.11	0.04								10.28
1998	1.68	3.25	2.29	0.42	0.10	0.01				0.01				7.76
1999	2.11	4.80	2.90	0.84	0.28	0.06	0.04	0.02		0.01				11.06
2000	0.70	6.52	4.96	2.51	0.78	0.17	0.08	0.04	0.01					15.76
2001	3.07	5.33	6.42	2.44	0.80	0.37	0.09	0.05	0.01		0.01	0.01		18.59
2002	2.77	10.74	5.58	2.26	0.85	0.32	0.13	0.02	0.01					22.68
2003	8.17	14.36	8.48	2.67	1.04	0.39	0.32	0.15	0.05		0.01			35.62
2004	1.45	8.68	4.56	1.64	0.62	0.41	0.19	0.16	0.02	0.03	0.01			17.77
2005	2.96	4.03	3.07	1.34	0.70	0.33	0.17	0.13	0.12	0.03		0.01		12.89
2006	2.64	9.06	4.29	2.47	1.32	0.56	0.24	0.22	0.14	0.07	0.01	0.04		21.04
2007	2.77	6.18	5.15	1.54	0.58	0.31	0.16	0.05	0.08	0.01				16.83
Mean	4.84	6.82	3.22	1.19	0.52	0.23	0.14	0.09	0.06	0.02	0.01	0.02		16.89

Table 99. NEFSC Winter trawl survey (offshore strata from 27-185 meters (15-100 fathoms): 1-3, 5-7, 9-11, 13-14, 16-17, 61-63, 65-67, 69-71, 73-75; Southern Georges Bank to Cape Hatteras): summer flounder mean length (cm) at age.

Year	Age											
	1	2	3	4	5	6	7	8	9	10	11	12+
1992	28.0	38.4	48.8	60.0	70.0	69.0						
1993	27.9	37.3	49.4	58.7	58.5	65.0						
1994	28.0	37.5	46.1	56.4			69.0					
1995	27.4	40.2	50.8	59.6								
1996	30.9	38.2	51.4	61.2	63.6							
1997	29.2	37.8	44.5	50.0	57.3	62.5						
1998	28.4	38.0	43.3	52.2	59.7	66.3				64.0		
1999	28.4	36.9	44.5	51.6	59.2	64.1	70.2	68.8		78.0		
2000	28.2	35.9	41.4	49.0	56.3	62.2	68.2	67.1	77.0			
2001	28.3	37.3	43.6	50.2	56.3	61.0	65.3	69.4	58.6		70.0	74.0
2002	30.0	38.5	44.5	51.4	58.1	62.2	66.4	62.7	75.0			
2003	30.8	39.2	45.2	51.4	55.9	61.0	65.6	67.8	67.1		67.0	
2004	28.8	38.6	44.5	50.8	55.0	60.2	65.0	66.6	67.1	72.4	69.0	
2005	27.7	37.6	44.1	48.9	53.3	56.4	60.8	64.1	65.3	70.6		71.5
2006	30.9	36.8	41.0	46.7	51.2	54.6	60.2	61.4	62.1	68.2	65.0	73.3
2007	27.8	38.2	43.5	49.1	53.8	57.3	62.1	63.6	66.0	65.0		
Mean	28.8	37.9	45.4	52.9	57.7	61.7	65.3	65.7	67.3	69.7	67.8	72.9

Table 100. MADMF Spring survey cruises: stratified mean number per tow at age.

Year	Age									Total
	0	1	2	3	4	5	6	7	8+	
1978		0.102	0.547	0.288	0.232		0.045			1.214
1979			0.087	0.090	0.152	0.050	0.011			0.390
1980		0.056	0.062	0.053	0.077	0.054	0.056	0.012		0.370
1981		0.431	0.593	0.079	0.033	0.046	0.064		0.032	1.278
1982		0.350	1.584	0.142	0.042	0.022			0.010	2.150
1983		0.051	0.599	0.450	0.024	0.009	0.022		0.012	1.167
1984		0.044	0.078	0.067	0.116					0.305
1985		0.154	1.260	0.036	0.051	0.004				1.505
1986		0.995	0.522	0.185	0.009					1.711
1987		0.656	0.640	0.013			0.011			1.320
1988		0.211	1.005	0.123	0.014					1.353
1989			0.363	0.102			0.011			0.476
1990		0.257	0.021	0.081	0.013					0.372
1991		0.032	0.050	0.011						0.093
1992		0.280	0.342	0.090		0.012	0.011			0.735
1993		0.126	0.492	0.065	0.010				0.022	0.715
1994		1.860	1.217	0.048	0.023		0.011			3.159
1995		0.104	1.302	0.053						1.459
1996		0.076	0.686	0.114	0.012					0.888
1997		0.544	1.279	0.181	0.116		0.006			2.126
1998		0.144	1.212	0.659	0.049	0.050				2.114
1999		0.078	0.878	1.112	0.302	0.029		0.016		2.415
2000		0.237	1.659	1.205	0.305	0.232	0.054			3.692
2001		0.186	1.026	0.730	0.229	0.057				2.228
2002		0.151	1.511	0.397	0.102	0.066	0.026	0.014	0.019	2.286
2003		0.206	1.440	0.624	0.185	0.118	0.012	0.023		2.608
2004		0.027	0.283	0.323	0.061	0.061	0.026	0.023	0.010	0.814
2005		0.136	0.351	1.029	0.315	0.132	0.074	0.053	0.107	2.197
2006		0.049	2.440	0.975	0.229	0.070	0.086	0.020	0.021	3.890
2007		0.254	0.392	1.008	0.102	0.080	0.051	0.012		1.899
Mean		0.278	0.797	0.344	0.112	0.064	0.034	0.022	0.029	1.564

Table 101. MADMF Autumn survey cruises: stratified mean number per tow at age.

Year	Age									Total
	0	1	2	3	4	5	6	7	8+	
1978		0.039	0.442	0.085		0.025				0.591
1979			0.050	0.109		0.020				0.179
1980		0.123	0.351	0.022	0.022	0.009				0.527
1981	0.010	0.400	0.405	0.012						0.827
1982	0.038	0.234	1.662	0.019						1.953
1983		0.033	0.625	0.154	0.006					0.818
1984	0.033	0.485	0.267	0.127		0.011				0.923
1985	0.057	0.117	1.895	0.039						2.108
1986	0.145	2.316	0.679	0.214	0.008	0.003				3.365
1987		1.202	0.663	0.011	0.006					1.882
1988		0.474	0.429	0.006	0.007	0.006				0.922
1989			0.317	0.016			0.012			0.345
1990		0.113		0.011						0.124
1991	0.024	0.531	0.288	0.005						0.848
1992		1.181	0.186							1.367
1993	0.009	0.335	0.478	0.030	0.022					0.874
1994	0.052	2.234	0.077							2.363
1995	0.011	0.342	0.507							0.860
1996		0.761	1.282	0.114	0.006					2.163
1997		0.494	1.508	0.351	0.020	0.036				2.409
1998		0.012	0.590	0.262	0.018	0.011				0.893
1999	0.061	0.347	0.940	0.379	0.037					1.764
2000	0.074	1.383	2.303	0.494	0.100	0.092	0.014	0.028		4.488
2001	0.011	1.244	1.083	0.307	0.027		0.011	0.017		2.700
2002	0.325	2.681	1.302	0.178	0.047	0.036				4.569
2003	0.133	3.059	1.254	0.256	0.037	0.028	0.006		0.010	4.783
2004	0.026	0.589	1.455	0.136	0.011	0.010				2.227
2005		1.557	2.049	1.350	0.446	0.096	0.015	0.015	0.017	5.545
2006	0.336	0.586	3.745	0.559	0.043	0.023	0.016			5.308
2007	0.399	0.500	0.401	1.039	0.168	0.067	0.016			2.590
Mea	0.103	0.835	0.939	0.233	0.057	0.032	0.013	0.020	0.014	2.011

Table 102. MADMF seine survey: total catch of age-0 summer flounder.

Year	Total catch
1982	3
1983	3
1984	1
1985	19
1986	5
1987	4
1988	2
1989	3
1990	11
1991	4
1992	0
1993	2
1994	1
1995	13
1996	7
1997	0
1998	12
1999	13
2000	10
2001	1
2002	70
2003	11
2004	4
2005	0
2006	43
2007	
Mean	10

Table 103. CTDEP spring trawl survey: summer flounder index of abundance, geometric mean number per tow at age. CTDEP lengths aged with NEFSC spring trawl survey age-length keys.

Year	Age								Total
	0	1	2	3	4	5	6	7+	
1984	0.000	0.314	0.271	0.044	0.000	0.000	0.000	0.000	0.629
1985	0.000	0.015	0.325	0.040	0.058	0.003	0.000	0.000	0.441
1986	0.000	0.753	0.100	0.082	0.008	0.006	0.000	0.000	0.949
1987	0.000	0.951	0.086	0.014	0.004	0.001	0.000	0.001	1.057
1988	0.000	0.232	0.223	0.035	0.009	0.001	0.000	0.000	0.500
1989	0.000	0.013	0.049	0.024	0.016	0.000	0.000	0.000	0.102
1990	0.000	0.304	0.022	0.013	0.006	0.001	0.000	0.001	0.347
1991	0.000	0.392	0.189	0.029	0.028	0.001	0.000	0.000	0.639
1992	0.000	0.319	0.188	0.021	0.004	0.023	0.000	0.000	0.555
1993	0.000	0.320	0.151	0.015	0.018	0.003	0.000	0.001	0.508
1994	0.000	0.496	0.314	0.025	0.018	0.005	0.000	0.002	0.860
1995	0.000	0.199	0.051	0.020	0.005	0.000	0.000	0.006	0.281
1996	0.000	0.578	0.266	0.086	0.023	0.004	0.000	0.004	0.961
1997	0.000	0.391	0.507	0.057	0.036	0.004	0.002	0.002	0.999
1998	0.000	0.064	0.594	0.503	0.116	0.006	0.025	0.002	1.310
1999	0.000	0.245	0.593	0.385	0.139	0.053	0.025	0.000	1.440
2000	0.000	0.321	0.726	0.524	0.074	0.111	0.034	0.000	1.790
2001	0.000	0.841	0.340	0.365	0.120	0.043	0.032	0.007	1.748
2002	0.000	1.057	1.264	0.465	0.233	0.087	0.044	0.035	3.185
2003	0.000	1.608	1.016	0.395	0.232	0.085	0.046	0.039	3.421
2004	0.000	0.259	0.818	0.410	0.194	0.032	0.077	0.048	1.838
2005	0.000	0.253	0.264	0.150	0.033	0.036	0.039	0.029	0.804
2006	0.000	0.038	0.360	0.068	0.065	0.034	0.026	0.022	0.613
2007	0.000	1.152	0.210	0.560	0.316	0.115	0.089	0.065	2.507
Mean	0.000	0.463	0.372	0.180	0.073	0.027	0.018	0.011	1.145

Table 104. CTDEP autumn trawl survey: summer flounder index of abundance, geometric mean number per tow at age. CTDEP lengths aged with NEFSC autumn trawl survey age-length keys.

Year	Age								Total
	0	1	2	3	4	5	6	7	
1984	0.000	0.571	0.331	0.072	0.014	0.004	0.004	0.003	0.999
1985	0.240	0.339	0.528	0.075	0.001	0.008	0.000	0.000	1.191
1986	0.172	1.170	0.298	0.072	0.006	0.001	0.000	0.000	1.719
1987	0.075	1.067	0.223	0.033	0.003	0.000	0.000	0.000	1.401
1988	0.015	0.884	0.481	0.037	0.002	0.001	0.000	0.000	1.420
1989	0.000	0.029	0.095	0.015	0.001	0.000	0.000	0.000	0.140
1990	0.032	0.674	0.110	0.042	0.007	0.005	0.000	0.000	0.870
1991	0.036	0.826	0.340	0.036	0.013	0.005	0.004	0.000	1.260
1992	0.013	0.570	0.366	0.046	0.016	0.009	0.000	0.000	1.020
1993	0.084	0.827	0.152	0.039	0.003	0.001	0.002	0.001	1.109
1994	0.132	0.300	0.085	0.024	0.009	0.000	0.000	0.000	0.550
1995	0.023	0.384	0.117	0.012	0.002	0.001	0.000	0.002	0.541
1996	0.069	0.887	1.188	0.042	0.005	0.000	0.000	0.000	2.191
1997	0.033	0.681	1.373	0.373	0.021	0.014	0.004	0.001	2.500
1998	0.000	0.269	1.054	0.321	0.054	0.021	0.000	0.000	1.719
1999	0.044	0.679	1.484	0.346	0.114	0.011	0.002	0.000	2.680
2000	0.112	0.395	0.871	0.341	0.124	0.043	0.011	0.013	1.910
2001	0.021	2.689	1.137	0.436	0.110	0.018	0.005	0.001	4.417
2002	0.442	3.087	1.930	0.479	0.123	0.031	0.024	0.005	6.121
2003	0.000	1.459	1.319	0.407	0.087	0.091	0.016	0.009	3.388
2004	0.255	0.385	0.755	0.440	0.080	0.024	0.015	0.000	1.954
2005	0.067	1.093	0.744	0.355	0.087	0.032	0.012	0.020	2.410
2006	0.098	0.217	0.592	0.230	0.096	0.044	0.021	0.018	1.315
2007	0.130	0.567	0.387	0.468	0.201	0.078	0.041	0.016	1.888
Mean	0.087	0.835	0.665	0.198	0.049	0.018	0.007	0.004	1.863

Table 105. RIDFW autumn trawl survey summer flounder index of abundance. RIDFW lengths aged with NEFSC autumn trawl survey age-length keys.

Year	Age										Total
	0	1	2	3	4	5	6	7	8	9	
1981	0.30	0.97	1.74	0.20	0.01	0.00	0.00	0.00	0.00	0.00	3.24
1982	0.02	0.21	0.52	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.83
1983	0.03	0.14	0.42	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.71
1984	0.02	0.74	0.49	0.10	0.00	0.00	0.00	0.00	0.00	0.00	1.35
1985	0.35	0.31	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.97
1986	0.35	2.45	0.51	0.13	0.00	0.01	0.00	0.00	0.00	0.00	3.46
1987	0.04	0.94	0.37	0.02	0.04	0.00	0.00	0.00	0.00	0.00	1.42
1988	0.00	0.34	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
1989	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
1990	0.05	0.67	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84
1991	0.00	0.12	0.08	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.22
1992	0.01	0.77	0.41	0.11	0.07	0.00	0.00	0.00	0.00	0.00	1.38
1993	0.01	0.41	0.22	0.07	0.00	0.00	0.03	0.00	0.00	0.00	0.74
1994	0.04	0.12	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
1995	0.02	0.53	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.76
1996	0.10	0.95	1.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	2.09
1997	0.03	0.56	0.96	0.30	0.02	0.02	0.00	0.00	0.00	0.00	1.89
1998	0.00	0.09	0.36	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.54
1999	0.02	1.04	1.91	0.35	0.02	0.01	0.00	0.00	0.00	0.00	3.35
2000	0.40	0.50	1.24	0.45	0.14	0.03	0.00	0.00	0.00	0.00	2.76
2001	0.00	1.05	0.63	0.30	0.09	0.07	0.01	0.00	0.00	0.00	2.15
2002	0.44	2.42	1.38	0.40	0.08	0.02	0.03	0.03	0.00	0.00	4.79
2003	0.10	2.35	2.08	0.49	0.12	0.04	0.06	0.00	0.00	0.00	5.24
2004	0.03	0.48	1.30	0.78	0.19	0.06	0.01	0.00	0.00	0.00	2.85
2005	0.01	0.84	1.38	0.69	0.15	0.14	0.01	0.04	0.03	0.00	3.29
2006	0.10	0.14	1.13	0.44	0.16	0.02	0.01	0.00	0.00	0.00	2.00
2007	0.08	0.43	0.86	1.35	0.34	0.13	0.08	0.02	0.00	0.03	3.32
Mean	0.09	0.72	0.74	0.24	0.05	0.02	0.01	0.00	0.00	0.00	1.89

Table 106. RIDFW monthly fixed station trawl survey summer flounder index of abundance. RIDFW lengths aged with NEFSC spring and autumn trawl survey age-length keys.

Year	Age											Total	
	0	1	2	3	4	5	6	7	8	9	2+		
1990	0.02	0.17	0.04	0.05	0.01	0.00	0.00	0.00	0.00	0.00		0.10	0.29
1991		0.07	0.08									0.08	0.15
1992	0.01	0.15	0.13	0.04	0.01							0.18	0.34
1993	0.01	0.11	0.09	0.04			0.01					0.14	0.26
1994	0.04	0.08	0.04		0.01							0.05	0.17
1995	0.03	0.02	0.02	0.01								0.03	0.08
1996	0.02	0.41	0.40	0.13								0.53	0.96
1997	0.04	0.17	0.38	0.13	0.01							0.52	0.73
1998		0.07	0.24	0.11	0.01							0.36	0.43
1999	0.03	0.26	0.37	0.17	0.05	0.02						0.61	0.90
2000	0.09	0.63	1.22	0.49	0.12	0.05	0.01					1.89	2.61
2001	0.01	0.42	0.28	0.15	0.06	0.04	0.02					0.55	0.98
2002	0.11	0.81	0.63	0.30	0.11	0.05		0.02				1.11	2.03
2003	0.05	1.48	1.44	0.45	0.24	0.08	0.04					2.25	3.78
2004	0.10	0.54	0.88	0.46	0.13	0.04	0.02					1.53	2.17
2005	0.04	0.55	0.98	0.53	0.17	0.16	0.02	0.03	0.01			1.90	2.49
2006	0.00	0.24	0.47	0.29	0.23	0.06	0.02	0.01				1.08	1.32
2007	0.04	0.25	0.51	0.55	0.20	0.07	0.05	0.01				1.39	1.68
Mean	0.04	0.36	0.46	0.24	0.10	0.06	0.02	0.01	0.01	0.00		0.79	1.19

Table 107. NJBMF trawl survey, April - October: index of summer flounder abundance. NJBMF lengths aged with NEFSC autumn trawl survey age-length keys.

Year	Age					Total
	0	1	2	3	4+	
1988	0.17	3.06	1.03	0.00	0.00	4.26
1989	1.00	0.51	0.18	0.00	0.00	1.69
1990	1.28	1.44	0.11	0.03	0.00	2.86
1991	1.00	2.69	0.27	0.02	0.00	3.98
1992	1.10	3.00	0.57	0.06	0.02	4.75
1993	2.55	5.69	0.20	0.01	0.01	8.46
1994	1.66	1.07	0.08	0.00	0.02	2.83
1995	4.95	2.93	0.28	0.05	0.16	8.37
1996	1.66	5.10	2.70	0.18	0.05	9.69
1997	1.65	8.25	5.25	1.02	0.18	16.35
1998	0.67	5.80	2.67	0.29	0.04	9.47
1999	1.03	6.12	3.46	0.65	0.18	11.44
2000	0.95	3.91	1.82	0.45	0.22	7.35
2001	0.62	3.32	1.18	0.41	0.15	5.68
2002	1.51	9.11	4.13	1.28	0.81	16.84
2003	0.60	5.61	2.55	0.57	0.51	9.84
2004	0.90	6.27	2.49	0.57	0.43	10.66
2005	3.11	5.99	1.24	0.53	0.32	11.19
2006	0.81	5.74	3.22	0.48	0.40	10.65
2007	0.64	4.10	2.49	1.22	0.53	8.98
Mean	1.39	4.49	1.80	0.39	0.20	8.27

Table 108. DEDFW 16 foot trawl survey: index of summer flounder recruitment at age-0 in the Delaware Estuary.

Year	Geometric Mean number per tow
1980	0.12
1981	0.06
1982	0.11
1983	0.03
1984	0.08
1985	0.06
1986	0.10
1987	0.14
1988	0.01
1989	0.12
1990	0.23
1991	0.07
1992	0.31
1993	0.03
1994	0.29
1995	0.17
1996	0.03
1997	0.02
1998	0.03
1999	0.05
2000	0.18
2001	0.07
2002	0.07
2003	0.09
2004	0.10
2005	0.00
2006	0.02
2007	0.03
Mean	0.09

Table 109. DEDFW 16 foot trawl survey: index of summer flounder recruitment at age-0 in the Delaware Inland Bays.

Year	Geometric Mean number per tow
1986	0.317
1987	0.258
1988	0.013
1989	0.139
1990	0.361
1991	0.378
1992	0.368
1993	0.047
1994	0.571
1995	0.301
1996	0.080
1997	0.222
1998	0.390
1999	0.350
2000	0.205
2001	0.142
2002	0.125
2003	0.214
2004	0.268
2005	0.012
2006	0.170
2007	0.170
Mean	0.232

Table 110. DEDFW Delaware Bay 30 foot trawl survey: index of summer flounder abundance.

Year	Age					Total
	0	1	2	3	4+	
1991	1.44	1.13	0.18	0.04	0.00	2.79
1992	0.47	0.28	0.08	0.00	0.00	0.83
1993	0.04	1.56	0.73	0.07	0.00	2.40
1994	2.28	0.14	0.22	0.08	0.00	2.72
1995	0.94	1.00	0.28	0.10	0.09	2.41
1996	0.46	0.73	0.48	0.10	0.02	1.79
1997	0.03	0.12	0.49	0.47	0.16	1.27
1998	0.11	0.31	0.83	0.29	0.12	1.66
1999	0.20	0.06	0.77	0.47	0.19	1.69
2000	0.79	0.24	0.30	0.28	0.23	1.84
2001	0.34	1.55	0.49	0.26	0.13	2.77
2002	0.04	0.23	0.09	0.00	0.03	0.39
2003	0.15	0.14	0.29	0.15	0.12	0.85
2004	0.02	0.07	0.06	0.01	0.02	0.18
2005	0.00	0.30	0.11	0.02	0.01	0.44
2006	0.41	0.10	0.23	0.07	0.02	0.83
2007	0.11	0.14	0.83	0.09	0.12	1.29
Mean	0.46	0.48	0.38	0.15	0.07	1.54

Table 111. MD DNR Coastal Bays trawl survey: index of summer flounder recruitment at age-0. Geometric mean (re-transformed $\ln[\text{number per hectare} + 1]$)

Year	Geometric mean number/tow	Lower 95% CI	Upper 95% CI
1972	34.351	1.532	87.888
1973	10.321	1.356	19.267
1974	12.311	1.277	20.165
1975	3.606	1.190	5.104
1976	4.207	1.218	6.246
1977	4.337	1.258	6.894
1978	5.731	1.203	8.295
1979	6.715	1.279	11.060
1980	7.395	1.357	13.837
1981	8.849	1.261	14.123
1982	3.408	1.405	6.983
1983	17.699	4.384	10223.618
1984	13.310	1.359	24.738
1985	12.843	1.305	22.076
1986	59.526	1.616	161.427
1987	7.584	1.444	16.018
1988	1.763	1.135	2.267
1989	2.855	1.162	3.843
1990	4.733	1.142	6.156
1991	7.337	1.156	9.772
1992	8.487	1.164	11.461
1993	4.145	1.141	5.383
1994	22.311	1.165	30.194
1995	13.067	1.156	17.404
1996	6.493	1.147	8.509
1997	7.997	1.161	10.752
1998	14.983	1.149	19.708
1999	8.565	1.152	11.326
2000	9.874	1.167	13.407
2001	13.543	1.169	18.442
2002	5.406	1.145	7.066
2003	8.180	1.163	11.035
2004	6.993	1.158	9.350
2005	2.198	1.112	2.709
2006	9.658	1.155	12.843
2007	15.438	1.156	20.573
Mean	10.728		

Table 112. VIMS juvenile fish trawl survey: index of summer flounder recruitment at age-0. Includes all available data and incorporates gear conversion factors from studies conducted in the late 1990s. There was no survey in 1960.

Year	Geometric mean catch per trawl	Lower 95% confidence limit	Upper 95% confidence limit	Number of stations
1955	0.00	0.00	0.00	2
1956	4.44	2.91	6.56	29
1957	2.14	1.22	3.42	28
1958	1.48	0.23	4.00	27
1959	0.06	-0.03	0.15	27
1960				
1961	0.19	0.12	0.61	11
1962	0.00	0.00	0.00	7
1963	2.07	0.78	4.29	12
1964	0.65	0.54	0.76	16
1965	0.74	0.27	1.39	13
1966	0.00	0.00	0.00	17
1967	0.43	-0.17	1.46	27
1968	0.14	-0.05	0.36	27
1969	0.20	0.04	0.38	27
1970	0.04	-0.02	0.10	29
1971	3.72	3.43	4.04	129
1972	0.85	0.79	0.92	84
1973	1.27	0.77	1.89	94
1974	0.82	0.31	1.51	32
1975	0.14	0.00	0.30	22
1976	0.57	0.32	0.86	68
1977	1.67	1.16	2.31	36
1978	1.24	0.47	2.40	36
1979	2.94	2.74	3.15	50
1980	10.69	6.49	17.25	70
1981	3.97	2.39	6.31	67
1982	2.27	1.54	3.21	64
1983	5.01	3.62	6.82	60
1984	1.58	0.96	2.39	41
1985	1.26	0.52	2.37	27
1986	1.26	0.77	1.89	53
1987	0.39	0.20	0.63	52
1988	0.54	0.35	0.75	143
1989	1.24	0.94	1.58	162

Table 112 continued.

Year	Geometric mean catch per trawl	Lower 95% confidence limit	Upper 95% confidence limit	Number of stations
1990	2.54	2.06	3.09	162
1991	2.64	2.14	3.22	207
1992	0.89	0.68	1.12	187
1993	0.50	0.36	0.65	185
1994	2.41	1.91	2.99	186
1995	0.63	0.46	0.82	218
1996	0.81	0.62	1.02	224
1997	0.89	0.69	1.12	226
1998	0.73	0.55	0.93	226
1999	0.53	0.41	0.67	219
2000	0.57	0.43	0.73	227
2001	0.47	0.34	0.61	236
2002	0.77	0.54	1.04	179
2003	0.44	0.33	0.56	225
2004	1.30	1.03	1.60	225
2005	0.35	0.25	0.46	225
2006	0.80	0.60	1.02	203
2007				
Mean	1.41			

Table 113. North Carolina Division of Marine Fisheries (NCDMF) Pamlico Sound trawl survey: June index of summer flounder recruitment at age-0.

Year	Mean number per tow	CV (%)
1987	19.86	14
1988	2.61	34
1989	6.63	17
1990	4.27	18
1991	5.85	24
1992	9.14	19
1993	5.13	24
1994	8.17	24
1995	6.65	25
1996	30.67	18
1997	14.14	21
1998	10.44	41
1999	n/a	n/a
2000	3.94	21
2001	22.03	15
2002	18.28	18
2003	7.23	24
2004	5.90	20
2005	9.88	22
2006	1.96	22
2007	3.62	22
Mean	9.82	22

Table 114. Commercial fishery landings (by year and division), 1967-2006.

YEAR	Divisions						
	51	52	53	61	62	63	99
1967	1	210	177	0			104
1968		42	93	33	4		42
1969	0	24	59	26	0		29
1970	1	12	42	26			34
1971	0	29	48	23			37
1972		10	55	39	1		34
1973	0	47	282	67	3	0	64
1974	27	289	1189	183	3		148
1975	17	279	1508	174	0		157
1976	23	648	2604	1312	52		166
1977	26	817	937	526	3	1	96
1978	8	668	1112	1032	1536	8	99
1979	5	764	766	1092	1840		87
1980	4	302	341	912	1289		47
1981	19	569	763	901	975	0	142
1982	214	787	1355	1041	2429	609	165
1983	61	1110	1628	1026	3762	1526	148
1984	18	1130	1040	1273	4050	2303	243
1985	80	1406	2259	1494	2854	975	346
1986	24	1232	2535	2723	1871	569	349
1987	22	948	2322	2152	3130	749	193
1988	81	1055	1825	2684	4467	802	151
1989	13	926	1488	994	2078	625	80
1990	2	228	725	412	873	644	80
1991	5	193	972	1119	1666	590	100
1992	9	325	1250	1390	2317	819	251
1993	11	287	816	1222	1777	216	153
1994	37	336	958	1465	1583	351	250
1995	22	336	978	1657	1361	295	261
1996	14	251	734	1314	1248	136	249
1997	21	103	699	1132	811	905	321
1998	11	96	769	1212	1271	1177	539
1999	8	132	748	1180	1439	777	533
2000	13	128	760	1547	1552	568	526
2001	12	120	723	1401	1638	583	484
2002	28	189	899	1915	2428	561	551
2003	26	212	1019	1986	2309	417	515
2004	7	232	1496	2705	2925	340	439
2005	24	240	1035	2334	3271	453	468
2006	17	110	860	2787	1954	175	359
Total	912	16822	39869	46511	60771	17173	9041

Table 115. Initial run configurations tested in building the ASAP model framework for summer flounder.

Run ID	Obj Func	Selex Blocks	Selex Est	Fishery	ESS SV	CVs	SSB2006	F2006	Notes
SELEX_2_NEC	3958.1	2; 1994/1995	By Age; 0-3	Comm trips	0.40	all	21,248	0.81	Lambdas defaults
Next, iterated FISHERY ESS to find a reasonable constant level									
SELEX_2_NEC_300	4184.6	2; 1994/1995	By Age; 0-3	300	0.40	all	25,190	0.63	ESS set too high
SELEX_2_NEC_200	3007.3	2; 1994/1995	By Age; 0-3	200	0.15	NECW = NECS = 0.25 NECF = 0.25	26,880	0.55	ESS Pattern even
Next, tested sensitivity to SELEX blocks; based on pattern in CAA									
SELEX_93_94	2979.8	2; 1993/1994	By Age; 0-3	200	same		29,570	0.49	Noisy F-pattern near break
SELEX_94_95	3007.3	2; 1994/1995	By Age; 0-3	200	same		26,880	0.55	Smooth F-pattern through break
SELEX_95_96	2972.8	2; 1995/1996	By Age; 0-3	200	same		24,183	0.64	Big shift in F-pattern at break
SELEX_96_97	2927.7	2; 1996/1997	By Age; 0-3	200	same		21,550	0.76	Big shift in F-pattern at break
SELEX_97_98	2975.8	2; 1997/1998	By Age; 0-3	200	same		22,700	0.70	Big shift in F-pattern at break
Therefore, retained 1994/1995 SELEX break for blocks									

Table 116. Tuning run configurations tested in building the ASAP model framework for summer flounder.

Starting Point is Run SELEX_94_95, based on diagnostics and fit characteristics
Add agreed State SV Indices from ADAPT VPA F08_BASE Index selection exercise
Tuning of run using Fishery ESS and SV CVs, SELEX pattern
Catch Lambda = 10, all SVs = 1, all SELEX parms = 1, S-R = 0

Run ID	Obj Func	Selex Blocks	Selex Est	Fishery ESS	SV CVs	SSB2006	F2006	Notes
SELEX_94_95 (BASE)	3304.6	2; 1994/1995	By-Age; 0-3	200	NECW = 0.15 NECS, F = 0.25 State = 0.4	35,943	0.41	Large Spike in 1990 ESS, but F-pattern good Block 1 SELEX has "dip" at age 3
F08_BASE_T1	3238.2	2; 1994/1995	By-Age; 0-3	Input BASE Estimated	NECW = 0.15 NECS, F = 0.25 State = 0.4	36,625	0.40	Large Spike in 1990 ESS, but rest fit well Good fit to Fishery age-comps Block 1 SELEX still has "dip" at age 3
F08_BASE_T2	3309.6	2; 1994/1995	By-Age; 0-3	Average Block ESS (186, 181)	NECW = 0.15 NECS, F = 0.25 State = 0.4	36,200	0.41	Did not fix SELEX "dip"
F08_BASE_T3	3268.7	2; 1994/1995	Fit Single Logistic	Input BASE Estimated	NECW = 0.15 NECS, F = 0.25 State = 0.4	36,400	0.40	Fixed SELEX "dip" Block 1: S1 @ age 2 Block 2: S1 @ age 3
F08_BASE_T4	3621.5	2; 1994/1995	Fit Single Logistic	Input BASE Estimated	NECW = 0.16 NECS = 0.21 NECF = 0.31 MAS,F = 0.21 State = 0.40	38,044	0.38	Different spikes in ESS (85,89,92) Poorer fit to Fish age-comps Hard to discern sig. better fit to indices
F08_BASE_T5	2432.13	2; 1994/1995	Fit Single Logistic	Input BASE Estimated	NECW = 0.30 NECS = 0.40 NECF = 0.60 State = 0.60	38,570	0.38	One "unfit" spike in ESS (88) Slightly better fit to Fish age-comps Marginally better fit to indices

USED F08_BASE_T5 as basis for RETRO, MCMC, and BRPs

Table 117. Initial run configurations tested in building the SS2 model framework for summer flounder.

Run ID	Parm N	Like	Gradient	Selex	SSB2006	F2006
SELEX_1_p1	56	1525	0.001860	Est. peak @ 3-4	49,000	0.31
SELEX_1_p2	57	1226	7.486000	Est. peak @ 2	46,000	0.30
SELEX_1_p3	58	1226	2.214000	Est. peak @ 2	46,000	0.30
<i>SELEX_1_p3A</i>	58	1197	0.005829	<i>Allowed Dome @ 5+</i>	67,000	0.33
SELEX_2_p1	57	1561	0.000598	Est. peak @ 2 to 3	64,000	0.22
SELEX_2_p2	59	1233	0.002427	Est. peak @ 2 to 3	54,000	0.25
SELEX_2_p3	61	1234	5.255000	Est. peak @ 2 to 3	54,000	0.25
SELEX_3_p1	58	1502	0.025160	Est. peak @ 2 to 4	51,000	0.31
SELEX_3_p2	61	1174	0.001670	Est peak @ 2 to 3	50,000	0.28
SELEX_3_p3	64	1174	5.463000	Est peak @ 2 to 3	50,000	0.28

SELEX_2 time period are 1982-1988, 1989-2006

SELEX_3 time period are 1982-1988, 1989-1992, 1993-2006

All runs except SELEX_1_p3A fit logistic fishery selection

Attempts to fit 3 selex params: gradient too high

Attempts to fit 1 period: gradient too high, and/or relatively poor fit to fishery age comps

Runs with 3 time blocks and 1 or 2 SELEX params estimated fit fishery age comps best

Next step: alter dimensions of 3 periods, fit 1 or 2 SELEX params

Table 118. Second round of configurations tested in building the SS2 model framework for summer flounder.

Run ID	Parm	N	Like	Gradient	Selex	SSB2006	F2006
SELEX_3A time period are 1982-1988, 1989-1994, 1995-2006							
SELEX_3A_p1	58	1444	0.188900	age 3/4 to age 4/5		31,000	0.71 NOTE; Hit Finitial constraint = F = 2.0
SELEX_3A_p2	61	1170	0.013730	age 2 to 3		34,000	0.46 NOTE: Periods 1 and 2 have nearly same selex pattern
SELEX_2B time period are 1982-1994, 1995-2006							
SELEX_2B_p2	59	1171	0.000638	age 2 to 3		34,000	0.46 NOTE: Eff N to Obs N good; follows age comps well
CL100	59	1168	0.000318	age 2 to 3		33,600	0.47 NOTE: Eff N to Obs N good; follows age comps well
CL10	59	1147	0.000068	age 2 to 3		31,700	0.51 NOTE: Eff N to Obs N often >1; follows age comps well
CL1	59	1171	0.000638	age 2 to 3		33,800	0.46 NOTE: Eff N to Obs N good; follows age comps well

Table 119. Third round of configurations tested in building the SS2 model framework for summer flounder.

Run ID	Parm N	Like	Gradient	Selex	SSB2006	F2006	NOTES
Starting from SELEX_2B_p2_CL10							
Incorporate MMs recommendations to configure F08_NEC							
F08_NEC <i>Recruit devs begin in 1972</i> <i>Recruits devs follow S-R function</i> <i>Estimate R0 and R1 offset</i>	68	1642	0.000200	age 2; 0.99 to 0.94	91,672	0.15	Recruit (YOY) and Age-1 estimates do not follow indices SELEX barely changes
F08_NEC_SR1 <i>Recruit devs begin in 1982</i>	58	647	0.000085	age 2; 0.99 to 0.94	92,200	0.15	Recruit (YOY) and Age-1 estimates do not follow indices Allows more variability than F08_NEC, however SELEX barely changes
F08_NEC_SR2 <i>S-R function lambda set = 0.0001</i>	58	1152	0.000185	age 2; 0.99 to 0.70	31,627	0.54	Recruit (YOY) and Age-1 estimates follow indices SELEX changes substantially (as expected)
F08_NEC_SR3 <i>S-R function lambda set = 0</i> <i>Estimate S-R steepness, R0, R1 offset</i>	59	1152	0.000424	age 2; 0.99 to 0.70	32,587	0.54	Recruit (YOY) and Age-1 estimates follow indices SELEX changes substantially (as expected) Recruits in 1982-1983 low relative to other models B-H Steepness = 0.93
F08_NEC_SR4 <i>S-R function lambda set = 0</i> <i>Estimate S-R steepness, R0, R1 offset</i> <i>Reset Recruit devs to begin in 1972</i>	69	1145	0.000029	age 2; 0.99 to 0.70	31,803	0.54	WARNING: Hessian not positive definite B-H Steepness = 0.99 No improvement in SV fits

So, go back to F08_NEC_SR3 and add State Indices to build F08_BASE

Table 120. Tuning run configurations tested in building the SS2 model framework for summer flounder.

Run ID	Parm N	Like	Gradient	Selex	SSB2006	F2006	NOTES
Incorporate State SV Indices to F08_NEC_SR3 to build F08_BASE							
F08_BASE <i>S-R function lambda set = 0</i> <i>Estimate S-R steepness, R0, R1 offset</i> <i>Recruit devs to begin in 1982</i>	59	3026	0.000027	age 2; 0.99 to 0.77	44,430	0.34	Recruit (YOY) and Age-1 estimates follow indices SELEX changes substantially (as expected) Recruits in 1982-1983 low relative to other models B-H Steepness = 0.92 B-H Alpha ~45% higher than in ASAP T5 run
F08_BASE_T1 <i>Used ESS/OSS ratio</i> <i>to tune Fishery age comps</i> <i>Var. adj. = 1.863x</i>	59	3068	0.000077	age 2; 0.99 to 0.71	39,950	0.40	Recruit (YOY) and Age-1 estimates follow indices SELEX changes substantially (as expected) Recruits in 1982-1983 low relative to other models B-H Steepness = 0.94 B-H Alpha ~20% higher than in ASAP T5 run Improved ESS/OSS ratio
F08_BASE_T2 <i>Increased SV CVs to 0.3, 0.4, 0.6</i> <i>(as in ASAP T5 run)</i> <i>Var. Adj. = +0.14, +0.19, +0.20</i>	59	1050	0.000543	age 2; 0.99 to 0.68	38,820	0.43	Recruit (YOY) and Age-1 estimates follow indices SELEX changes substantially (as expected) Recruits in 1982-1983 low relative to other models B-H Steepness = 0.94 B-H Alpha ~30% higher than in ASAP T5 run Change due to SV CVs smaller than change due to ESS/OSS ratio Increased SV CV allows more fits thru CIs; doesn't fix 2000s resid Good fits to Fishery agecomps; no residual patterns

Table 121. Mohn’s rho diagnostic statistic from retrospective analyses for the ADAPT VPA, ASAP, and SS2 BASE case model runs.

Mohn rho
 (Relative Proportional Difference from Terminal Year = 2006)

F (3-5)

Year	ADAPT	ASAP	SS2
1997	0.2460	-0.2719	-0.5658
1998	-0.3178	-0.1133	-0.4886
1999	-0.5637	-0.0619	-0.2764
2000	-0.6018	-0.2570	-0.2972
2001	-0.6091	-0.2594	-0.3180
2002	-0.4943	-0.3555	-0.3638
2003	-0.4248	-0.3783	-0.4181
2004	-0.2526	-0.3232	-0.3708
2005	-0.1492	-0.0924	-0.1189
Sum	-3.1673	-2.1129	-3.2175

SSB

Year	ADAPT	ASAP	SS2
1997	0.2924	0.0714	0.4273
1998	0.2194	-0.0753	0.3297
1999	0.5344	-0.0451	0.1178
2000	0.7069	0.1988	0.1935
2001	0.5506	0.2808	0.2692
2002	0.5960	0.4007	0.3361
2003	0.5449	0.6018	0.5121
2004	0.2286	0.4355	0.3822
2005	0.0727	0.0877	0.0788
Sum	3.7459	1.9563	2.6465

Table 122. Alternative configurations tested for the ASAP model framework for summer flounder.

Starting Point is Run F08_BASE_T5

Run ID	Obj Func	Selex Blocks	Selex Est	Fishery ESS	SV CVs	SSB2006	F2006	Notes
F08_MULTI	15241	variable	variable	Input BASE Estimated or 10	Like BASE T4	24,900	0.55	Variable early Fs Lower than BASE Generally Lower SSB than BASE Difficulty fitting Comm Disc Ages Late 90s/Early 00s SV resids still evident S-R params infeasible
F08_SVAgecomp	28953	2; 1994/1995	single logistic	Input BASE Estimated or 10	Like BASE T4	39173	0.38	Comparable to BASE Matches fishery age comps well Late 90s/Early 00s SV resids still evident S-R steepness = 1
F08_MULTI_SVAge	45830	variable	variable	Input BASE Estimated or 10	Like BASE T4	23800	0.59	Variable mid-series F pattern Generally Lowest SSB estimates Difficulty fitting Comm Disc Ages Late 90s/Early 00s SV resids still evident in most SVs S-R params infeasible

Table 123. Alternative configurations tested for the SS2 model framework for summer flounder.

Run ID	Parm	N	Like	Gradient	Selex	SSB2006	F2006	NOTES
Alternative configurations using F08_BASE_T2 data and general settings								
F08_MULTI <i>Models each fishery component seperately - 6 fishery CAA</i> <i>Landings use flat pattern</i> <i>Discards use dome pattern</i> <i>"Untuned"</i>	200	4950.8	0.003016	variable		39,500	0.43	Comm & Rec Land SELEX "steeper" than BASE_F2 TRWL Disc SELEX flat SCAL Disc and REC disc strongly domed B-H Steepness = 0.88 Slightly Higher historical F than BASE_T2 Some SELEX bounds hit Positive late90s/early00s resids persist in age 3-5 SVs
F08_SVAgecomp <i>Single fishery CAA - flat pattern</i> <i>Surveys with multiple ages modeled as multinomial</i> <i>Stand-alone age 0 inidces modeled as lognormal</i> <i>"Untuned"</i>	79	2882.8	0.000087	age 2		36,500	0.44	Fishery SELEX "steeper" than BASE_F2 Surveys SELEX full (S=1) at ages 1 to 3 B-H Steepness = 0.95 10% to 40% higher historical F than BASE_T2 Some SELEX bounds hit Positive late90s/early00s resids in all aggregate SVs
F08_MULTI_SVAGE <i>Combines MULTI and SVAgecomp configurations</i> <i>"Untuned"</i>	220	4856.1	0.000140	variable		48,300	0.35	Comm & Rec Land SELEX LESS "steep" than BASE_F2 TRWL Disc SELEX flat SCAL Disc and REC disc strongly domed Surveys SELEX full (S=1) at ages 1 to 3 B-H Steepness = 0.94 Higher historical F than BASE_T2 Lowest Current F; highest SSB Some SELEX bounds hit Positive late90s/early00s resids in all aggregate SVs

Table 124. Results from the sex-structured stock assessment model and sensitivity analyses. Fmult is the amount that the 2005-2007 average fishing mortality would have to be scaled to produce MSY.

	Basecase	asymptotic	h75	M0.2	MFem0.2 MMale0.3	MFem0.2 MMaleest	Sage	Start82	Re- weighting
Likelihood	2744.4	3710.4	2887.5	3491.11	3060.5	2749.7	2839.4	2415.8	756.2
Gradient	0.0008	0.0059	0.0011	0.0004	0.0008	0.0769	0.0008	0.0342	0.0011
S1976/S0	0.31	0.41	0.23	0.20	0.19	0.17	0.28		0.41
S2008/S0	0.26	0.25	0.18	0.25	0.23	0.18	0.24	0.22	0.44
Smsy/S0	0.14	0.13	0.25	0.15	0.13	0.12	0.17	0.13	0.14
Smsy	17242	12984	44290	21510	20795	23804	20272	18385	15949
S2008	32757	24731	31006	36480	37093	33987	28788	30359	51659
S2008/Smsy	1.90	1.90	0.70	1.70	1.78	1.43	1.42	1.65	3.24
C/B1976	0.35	0.33	0.34	0.38	0.40	0.40	0.40		0.29
C/B2007	0.19	0.23	0.19	0.15	0.17	0.20	0.21	0.21	0.13
MSY/B	0.56	0.78	0.30	0.42	0.45	0.44	0.53	0.50	0.70
Fmult	4.69	15.19	1.86	2.85	2.88	2.46	4.08	3.28	12.08
MSY	17893	19607	21780	17618	17628	17475	19189	16450	21389
Mfemale	0.29	0.37	0.34	0.20	0.2	0.20	0.29	0.25	0.35
Mmale	0.54	0.63	0.60	0.20	0.3	0.46	0.46	0.51	0.60
h	1.00	1.00	0.75	1.00	1.00	1.00	1.00	1.00	1.00

Table 125. MSY related quantities from the sex-structured stock assessment model compared to arbitrary Spawning Biomass Ratio (SBR) targets. SBR is the spawning biomass relative to the spawning biomass in the absence of fishing. Fmult is the amount that the 2005-2007 average fishing mortality would have to be scaled to produce the associated SBR.

	Basecase	SBR = 0.3	SBR = 0.4
SBR _{msy}	0.14	0.30	0.40
F _{mult}	4.69	1.55	1.07
MSY	17893	16000	14118
SBR ₂₀₀₈	0.26	0.26	0.26

Table 126. Summary results for the 2008 assessment final model ASAP F08_T2007_T2 run.

Year	SSB (mt)	Recruits (age 0, 000s)	F (age 3-7+)
1982	24674	73512	1.163
1983	24637	81631	1.481
1984	20984	46683	1.614
1985	18724	56277	1.529
1986	17691	62128	1.737
1987	18338	47220	1.453
1988	10861	12831	2.042
1989	7017	28920	1.544
1990	9576	36843	1.143
1991	9152	31065	1.491
1992	10536	35647	1.527
1993	12099	37235	1.288
1994	15053	42313	1.216
1995	20671	49515	1.712
1996	23327	36764	1.438
1997	24650	36984	0.886
1998	27654	40570	0.797
1999	28054	32113	0.565
2000	30321	39385	0.679
2001	35651	37171	0.498
2002	40412	42130	0.437
2003	43673	31684	0.420
2004	43932	48991	0.457
2005	42081	23981	0.467
2006	41671	28819	0.370
2007	43363	39972	0.288
Mean	24800	41553	1.086

Table 127. January 1 population number (N, 000s) estimates from the 2008 assessment final model ASAP F08_T2007_T2 run.

Age	Year								
	1982	1983	1984	1985	1986	1987	1988	1989	1990
0	73512	81631	46683	56277	62128	47220	12831	28920	36843
1	46051	55147	60800	34658	41946	45895	35129	9428	20978
2	20734	21418	22397	23291	13978	14998	18608	11149	3089
3	3070	5228	3980	3664	4136	2029	2859	2017	1923
4	666	748	927	618	619	568	370	290	336
5	237	162	132	144	104	85	103	37	48
6	61	58	29	21	24	14	15	10	6
7+	17	19	14	7	5	4	3	2	2
Total	144349	164410	134963	118678	122941	110813	69919	51853	63225

Age	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	1999
0	31065	35647	37235	42313	49515	36764	36984	40570	32113
1	26963	22583	26134	27237	31195	37734	28067	28335	31082
2	8147	9103	8050	9741	10968	20134	25027	19658	19876
3	782	1478	1605	1778	2312	2859	6234	10951	9006
4	478	137	250	345	411	332	538	2020	3855
5	83	84	23	54	80	57	61	171	703
6	12	15	14	5	12	11	10	19	60
7+	2	2	3	4	2	2	2	4	8
Total	67533	69048	73315	81476	94495	97894	96923	101728	96703

Age	Year								
	2000	2001	2002	2003	2004	2005	2006	2007	
0	39385	37171	42130	31684	48991	23981	28819	39972	
1	24552	30156	28492	32340	24322	37607	18405	22135	
2	21317	17123	21393	20605	23399	17584	27135	13429	
3	9906	10272	9231	12197	11854	13205	9846	16180	
4	3866	3871	4793	4613	6194	5816	6408	5263	
5	1685	1512	1817	2396	2346	3036	2821	3428	
6	313	667	718	915	1228	1158	1483	1519	
7+	31	137	385	560	762	990	1059	1380	
Total	101054	100909	108958	105311	119095	103376	95976	103307	

Table 128. Fishing mortality (F) estimates from the 2008 assessment final model ASAP F08_T2007_T2 run.

Age	Year								
	1982	1983	1984	1985	1986	1987	1988	1989	1990
0	0.027	0.035	0.038	0.034	0.043	0.036	0.048	0.061	0.052
1	0.506	0.641	0.700	0.648	0.769	0.643	0.888	0.856	0.686
2	1.118	1.423	1.550	1.468	1.670	1.397	1.962	1.498	1.113
3	1.162	1.480	1.612	1.528	1.735	1.452	2.040	1.542	1.142
4	1.164	1.481	1.614	1.530	1.737	1.454	2.042	1.544	1.143
5	1.164	1.481	1.614	1.530	1.737	1.454	2.042	1.544	1.143
6	1.164	1.481	1.614	1.530	1.737	1.454	2.043	1.544	1.143
7+	1.164	1.481	1.614	1.530	1.737	1.454	2.043	1.544	1.143

Age	Year								
	1991	1992	1993	1994	1995	1996	1997	1998	1999
0	0.059	0.050	0.053	0.045	0.012	0.010	0.006	0.006	0.008
1	0.826	0.772	0.727	0.650	0.178	0.151	0.096	0.095	0.117
2	1.447	1.476	1.250	1.178	1.084	0.912	0.567	0.521	0.436
3	1.490	1.526	1.287	1.215	1.690	1.420	0.877	0.794	0.596
4	1.492	1.527	1.288	1.217	1.727	1.451	0.894	0.805	0.577
5	1.492	1.527	1.288	1.217	1.718	1.443	0.888	0.798	0.558
6	1.492	1.527	1.288	1.217	1.713	1.438	0.885	0.794	0.549
7+	1.492	1.527	1.288	1.217	1.711	1.436	0.884	0.792	0.546

Age	Year							
	2000	2001	2002	2003	2004	2005	2006	2007
0	0.007	0.006	0.004	0.004	0.004	0.005	0.004	0.005
1	0.100	0.083	0.064	0.064	0.064	0.066	0.055	0.064
2	0.470	0.358	0.302	0.293	0.312	0.320	0.257	0.228
3	0.690	0.512	0.444	0.428	0.462	0.473	0.376	0.306
4	0.689	0.506	0.443	0.426	0.463	0.474	0.376	0.295
5	0.677	0.495	0.436	0.418	0.456	0.466	0.369	0.284
6	0.671	0.490	0.432	0.415	0.452	0.463	0.366	0.279
7+	0.669	0.488	0.431	0.413	0.451	0.461	0.365	0.277

Table 129. 2008 assessment Biological Reference Point input data.

Mean Natural Mortality (M) = 0.25
 Proportion of mortality before spawning = 0.83

Age	Selectivity on F	Selectivity on M	Jan 1 Stock Weights	Catch Weights	Nov 1 SSB Weights	Maturity
0	0.01	1.00	0.000	0.180	0.243	0.380
1	0.16	0.99	0.296	0.425	0.501	0.910
2	0.70	0.98	0.554	0.685	0.765	0.980
3	1.00	0.97	0.812	0.947	1.038	1.000
4	0.99	0.96	1.087	1.244	1.358	1.000
5	0.97	0.95	1.422	1.616	1.756	1.000
6	0.96	0.94	1.839	2.066	2.225	1.000
7+	0.96	0.92	3.008	3.008	3.122	1.000

Table 130. Comparison of Biological Reference Points from the 2006 assessment (S&T 2006; Methot 2006, Terceiro 2006b) and 2008 assessment (= F08) alternatives. “Deterministic” and “stochastic” refer to estimation method for MSY and SSBMSY.

	ADAPT VPA	ASAP	ASAP
	S&T 2006	F08_T2007_T2_M20	F08_T2007_T2
NON-PARAMETRIC	(deterministic) M=0.2	(stochastic) M=0.20	(stochastic) M=0.25
Mean R (000s)	37,010	35,594	41,553
FMSY Proxy	Fmax	F35%	F35%
Fmax or F35% =			
FMSY	0.280	0.263	0.310
Y/R (kg)	0.579	0.458	0.358
SSB/R (kg)	2.416	2.078	1.443
Mean R MSY (mt)	21,444	16,974	13,122
Mean R SSBMSY(mt)	89,411	85,570	60,074
F40% = Ftarget	0.183	0.219	0.255
Y/R (kg)	0.563	0.442	0.345
SSB/R (kg)	3.397	2.375	1.649
Mean R MSY (mt)	20,837	16,632	12,807
Mean R SSBMSY(mt)	125,723	98,024	68,743
<hr/>			
PARAMETRIC			
External Beverton-Holt			
Alpha	36,079	42,126	42,126
Steepness	0.996	0.982	0.997
FMSY	0.260	0.376	0.526
MSY	19,595	19,612	15,754
SSBMSY	92,744	62,583	40,589
Internal Beverton-Holt			
Alpha	n/a	33,373	39,140
Steepness	n/a	0.999	0.999
FMSY	n/a	0.308	0.420
MSY	n/a	16,199	14,686
SSBMSY	n/a	61,664	43,898
External Ricker			
Alpha	n/a	1.750	1.749
Beta	n/a	-0.00005	-0.00005
FMSY	n/a	1.314	1.266
MSY	n/a	19,158	16,919
SSBMSY	n/a	25,922	24,011

Table 131. (page 1). Evaluation of stock status with respect to the 2006 assessment (page 1 of Table; S&T 2006; Methot 2006, Terceiro 2006b), the ADAPT VPA T2007 run (page 2 of Table), and 2008 assessment (page 3 of Table). Biological Reference Point alternatives are based on non-parametric approach. Each page of the table gives results for three values of natural mortality, M. Terminal Year (“term”) for “S&T 2006” (page 1) is 2005. For other runs (pages 2 and 3) “term” is 2007. For more details, see “Biological Reference Points” section of this report.

	ADAPT VPA S&T 2006	ADAPT VPA S&T 2006	ADAPT VPA S&T 2006
NON- PARAMETRIC	(deterministic) M = 0.20	(deterministic) mean M=0.25	(deterministic) mean M=0.33
Fmax	0.280	0.372	0.462
MSY			
(mt)	21,444	19,096	17,372
SSBMSY(mt)	89,411	65,606	53,650
Fterm	0.410	0.520	0.527
Yterm	13,779	13,779	13,779
SSBterm	47,498	41,449	42,441
Fterm/Fmax	1.46	1.40	1.14
Yterm/MSY	0.64	0.72	0.79
SSBterm/SSBMSY	0.53	0.63	0.79
F35%	0.218	0.265	0.291
MSY			
(mt)	21,429	18,715	16,934
SSBMSY(mt)	109,994	85,127	74,639
Fterm	0.410	0.520	0.527
Yterm	13,779	13,779	13,779
SSBterm	47,498	41,449	42,441
Fterm/Fmax	1.88	1.96	1.81
Yterm/MSY	0.64	0.74	0.81
SSBterm/SSBMSY	0.43	0.49	0.57
F40%	0.183	0.220	0.238
MSY			
(mt)	20,837	18,163	16,385
SSBMSY(mt)	125,723	97,306	85,325
Fterm	0.410	0.520	0.527
Yterm	13,779	13,779	13,779
SSBterm	47,498	41,449	42,441
Fterm/Fmax	2.24	2.36	2.21
Yterm/MSY	0.66	0.76	0.84
SSBterm/SSBMSY	0.38	0.43	0.50

Table 131. (Continued, page 2)

	ADAPT VPA T2007_M20	ADAPT VPA T2007_M25	ADAPT VPA T2007_M33
NON-PARAMETRIC	(stochastic) mean M=0.20	(stochastic) mean M=0.25	(stochastic) mean M=0.33
Fmax	0.419	0.604	1.769
MSY			
(mt)	14,629	13,120	10,155
SSBMSY(mt)	53,384	39,314	18,489
Fterm	0.311	0.311	0.317
Yterm	10,368	10,368	10,368
SSBterm	42,142	42,919	43,711
Fterm/Fmax	0.74	0.51	0.18
Yterm/MSY	0.71	0.79	1.02
SSBterm/SSBMSY	0.79	1.09	2.36
F35%	0.281	0.337	0.379
MSY			
(mt)	14,767	13,389	12,055
SSBMSY(mt)	73,624	60,333	54,061
Fterm	0.311	0.311	0.317
Yterm	10,368	10,368	10,368
SSBterm	42,142	42,919	43,711
Fterm/Fmax	1.11	0.92	0.84
Yterm/MSY	0.70	0.77	0.86
SSBterm/SSBMSY	0.57	0.71	0.81
F40%	0.234	0.276	0.307
MSY			
(mt)	14,480	13,070	11,551
SSBMSY(mt)	84,306	69,133	60,907
Fterm	0.311	0.311	0.317
Yterm	10,368	10,368	10,368
SSBterm	42,142	42,919	43,711
Fterm/Fmax	1.33	1.13	1.03
Yterm/MSY	0.72	0.79	0.90
SSBterm/SSBMSY	0.50	0.62	0.72

Table 131. (Continued, page 3)

	ASAP F08_T2007_T2_M20	ASAP F08_T2007_T2	ASAP F08_T2007_T2_M33
NON-PARAMETRIC	(stochastic) mean M=0.20	(stochastic) mean M=0.25	(stochastic) mean M=0.33
Fmax	0.393	0.558	1.710
MSY			
(mt)	16,834	12,868	10,967
SSBMSY(mt)	61,653	38,547	20,973
Fterm	0.300	0.288	0.290
Yterm	10,368	10,368	10,368
SSBterm	42,185	43,363	44,066
Fterm/Fmax	0.76	0.52	0.17
Yterm/MSY	0.62	0.81	0.95
SSBterm/SSBMSY	0.68	1.12	2.10
F35%	0.263	0.310	0.352
MSY			
(mt)	16,974	13,122	12,026
SSBMSY(mt)	85,570	60,074	53,811
Fterm	0.300	0.288	0.290
Yterm	10,368	10,368	10,368
SSBterm	42,185	43,363	44,066
Fterm/Fmax	1.14	0.93	0.82
Yterm/MSY	0.61	0.79	0.86
SSBterm/SSBMSY	0.49	0.72	0.82
F40%	0.219	0.255	0.285
MSY			
(mt)	16,632	12,807	11,515
SSBMSY(mt)	98,024	68,743	60,016
Fterm	0.300	0.288	0.290
Yterm	10,368	10,368	10,368
SSBterm	42,185	43,363	44,066
Fterm/Fmax	1.37	1.13	1.02
Yterm/MSY	0.62	0.81	0.90
SSBterm/SSBMSY	0.43	0.63	0.73

Table 132. 2008 assessment projection input data.

Mean Natural Mortality (M) = 0.25
 Proportion of mortality before spawning = 0.83

Age	Selectivity on F	Selectivity on M	Jan 1 Stock Weights	Catch Weights	Nov 1 SSB Weights	Maturity
0	0.01	1.00	0.000	0.180	0.243	0.380
1	0.16	0.99	0.296	0.425	0.501	0.910
2	0.70	0.98	0.554	0.685	0.765	0.980
3	1.00	0.97	0.812	0.947	1.038	1.000
4	0.99	0.96	1.087	1.244	1.358	1.000
5	0.97	0.95	1.422	1.616	1.756	1.000
6	0.96	0.94	1.839	2.066	2.225	1.000
7+	0.96	0.92	3.008	3.008	3.122	1.000

Table 133. Forecasts of landings, discards, and SSB for summer flounder during 2008-2009 for proposed fishing mortality reference points: F rebuild = 0.274, FMSY = F35% = 0.310, Ftarget = F40% = 0.255.

Forecast Table
 2008 Landings = 7,153 mt; F2008 = 0.238
 2008-2009 recruitment drawn from distribution of 1982-2007 ASAP estimates
 Forecast probabilities are 25% and 50% intervals of landings* for F
 Landings, Discards, and Spawning Stock Biomass (SSB) in mt

	2008			2009		
	Land	Disc	SSB	Land	Disc	SSB
F rebuild = 0.274						
25%ile	7153	885	46992	8653	1132	54253
50%ile	7153	885	46992	9211	1208	51663
	2008			2009		
FMSY = F35%=0.310	Land	Disc	SSB	Land	Disc	SSB
25%ile	7153	885	46992	9627	1265	53171
50%ile	7153	885	46992	10249	1350	50632
	2008			2009		
Ftarget = F40%=0.255	Land	Disc	SSB	Land	Disc	SSB
25%ile	7153	885	46992	8104	1057	54861
50%ile	7153	885	46992	8626	1129	52246

* based on previous TAL specification percentiles