

Table 1. Commercial landings (metric tons, live weight) of American plaice from Gulf of Maine, Georges Bank, Southern New England, and the Mid-Atlantic regions (NAFO Div. 5Y, 5Z and 6).

Year	Gulf of Maine			Georges Bank					Southern New England				Mid - Atlantic			Grand Total		
	USA	CA	Total	USA	CA	USSR	Other	Total	USA	USSR	Other	Total	USA	Other	Total	USA	Other	Total
1960	620	1.0	621	689				689	-	-	-	-	0	-	0	1309	1	1310
1961	692		692	830				830	-	-	-	-	0	-	0	1522	-	1522
1962	694		694	1233	44			1277	-	-	-	-	0	-	0	1927	44	1971
1963	693		693	1489	127	24		1640	-	-	-	-	0	-	0	2182	151	2333
1964	811		811	2800	177		11	2988	-	-	-	-	0	-	0	3611	188	3799
1965	967		967	2376	180	112		2668	-	-	-	-	0	-	0	3343	292	3635
1966	955	2.0	957	2388	242	279	1	2910	-	-	-	-	0	-	0	3343	524	3867
1967	1066	6.0	1,072	2166	203	1018	10	3397	-	-	-	-	4	-	4	3236	1237	4473
1968	904	5.0	909	1695	173	193	5	2066	637	145	-	782	18	2	20	3254	523	3777
1969	1059	7.0	1,066	1738	71	63	17	1889	505	349	-	854	130	0	130	3432	507	3939
1970	895		895	1603	92	927	658	3280	88	18	40	146	8	0	8	2594	1735	4329
1971	648	5.0	653	1511	38	228	296	2073	11	112	206	329	6	2	8	2176	887	3063
1972	569		569	1222	22	358		1602	3	71	-	74	0	-	0	1794	451	2245
1973	687		687	910	38	289		1237	5	158	-	163	0	-	0	1602	485	2087
1974	945	2.0	947	1039	27	16	2	1084	92	4	-	96	0	-	0	2076	51	2127
1975	1507		1,507	913	25	148		1086	3	-	-	3	0	-	0	2423	173	2596
1976	2550		2,550	948	24	3		975	10	-	-	10	1	-	1	3509	27	3536
1977	5647		5,647	1408	35	50		1493	6	78	-	84	7	-	7	7068	163	7231
1978	7287	30.0	7,317	2193	77			2270	15	-	-	15	8	-	8	9503	107	9610
1979	8835		8,835	2478	23			2501	13	-	7	20	4	-	4	11330	30	11360
1980	11139		11,139	2399	43		5	2447	10	-		10	1	-	1	13549	48	13597
1981	10327	1.0	10,328	2482	15		2	2499	26	-	2	28	46	-	46	12881	20	12901
1982	11147		11,147	3935	27		1	3963	35	-	2	37	9	-	9	15126	30	15156
1983	9142	7.0	9,149	3955	30			3985	40	-		40	4	-	4	13141	37	13178
1984	6833	2.0	6,835	3277	6			3283	17	-		17	7	-	7	10134	8	10142
1985	4766	1.0	4,767	2249	40			2289	12	-		12	2	-	2	7029	41	7070
1986	3319		3,319	1146	34			1180	4	-		4	3	-	3	4472	34	4506
1987	2766		2,766	1032	48			1080	2	-		2	1	-	1	3801	48	3849
1988	2271		2,271	1097	108			1205	13	-		13	1	-	1	3382	108	3490
1989	1646		1,646	703	68			771	1	-		1	3	-	3	2353	68	2421
1990	1802		1,802	639	52			691	2	-		2	2	-	2	2445	52	2497
1991	2936		2,936	1310	26			1336	15	-		15	0	-	0	4261	26	4287
1992	4564		4,564	1838	3			1841	10	-		10	4	-	4	6416	3	6419
1993	3866		3,866	1839				1839	11	-		11	4	-	4	5720	-	5720
1994	3553		3553	1388	30			1418	29	-		29	8	-	8	4977	30	5007
1995	3132		3132	1443	2			1445	34	-		34	8	-	8	4617	2	4619
1996	3018		3018	1310	2			1312	31	-		31	4	-	4	4363	2	4365
1997	2306		2306	1546	65			1611	37	-		37	1	-	1	3890	65	3955
1998	2290		2290	1317	20			1337	20	-		20	4	-	4	3631	20	3651
1999	1631		1631	1449	123			1572	23	-		23	5	-	5	3108	123	3231
2000	2594		2594	1572	143			1715	22	-		22	9	-	9	4196	143	4339
2001	2736	0.38	2736	1618	50			1668	44	-		44	2	-	2	4400	50	4451
2002	2005	0.52	2006	1374	98.72			1472	15	-		15	5	-	5	3399	99	3498
2003	1520	0.12	1520	874	60.18			934	29	-		29	3	-	3	2426	60	2487
2004	1045	0.10	1046	633	2.87			636	28	-		28	4	-	4	1710	3.0	1713
2005	752	0.28	753	569	4.95			574	13	-		13	2	-	2	1337	5.2	1343
2006	583	0.02	583	494	10.71			504	17	-		17	1	-	1	1094	10.7	1105
2007	601	0.06	601	375	2.03			377	6	-		6	6	-	6	988	2.1	990
2008	703	0.23	703	388	0.09			388	4	-		4	5	-	5	1100	0.3	1100
2009	866	0.02	866	501	0.17			501	6	-		6	7	-	7	1380	0.2	1380
2010	901	0.11	902	492	0.29			492	8	-		8	2	-	2	1404	0.4	1404
2011	771	0	771	593	1.28			595	2	-		2	1	-	1	1368	1.3	1369
2012	762	0	762	698	0.30			699	1	-		1	0	-	0	1462	0.3	1463
2013	764	0.05	764	528	0.11			528	2	-		2	4	-	4	1297	0.2	1297
2014	738	0	738	498	0.04			498	0	-		0	2	-	2	1239	0.0	1239
2015	828	0	828	400	0.00			400	2	-		2	0	-	0	1230	-	1230
2016	718	0	718	287	0.00			287	1	-		1	3	-	3	1009	-	1009
2017	871	0	871	259	0.006			259	1	-		1	3	-	3	1134		1134
2018	911	0	911	171	0.183			171	0	-		0	4	-	4	1086		1086

Table 2. Percentage of landings of American plaice by gear type.

YEAR	GEAR TYPE			
	Otter Trawl	Shrimp Trawl	Sink Gill Net	Other
1980	96.8	0.7	0.8	1.8
1981	96.5	2.2	0.7	0.6
1982	96.3	2.0	0.8	0.9
1983	96.3	1.7	0.3	1.7
1984	97.2	1.0	0.2	1.6
1985	96.9	1.6	0.1	1.4
1986	96.1	2.5	0.3	1.1
1987	95.5	2.6	0.6	1.5
1988	96.2	1.7	0.6	1.6
1989	95.5	1.4	1.2	2.0
1990	93.4	2.2	2.0	2.5
1991	94.8	0.9	0.9	3.3
1992	96.1	1.3	0.1	2.5
1993	95.9	1.2	0.1	2.8
1994	95.7	0.0	3.2	1.1
1995	94.9	0.1	3.8	1.2
1996	95.6	0.1	3.3	1.0
1997	95.7	0.1	3.0	1.2
1998	91.3	0.1	7.3	1.3
1999	97.3	0.1	2.0	0.6
2000	98.3	0.1	1.1	0.5
2001	98.2	0.1	1.3	0.4
2002	98.8	0.0	0.6	0.6
2003	96.7	0.2	0.9	2.2
2004	96.2	0.0	1.0	2.8
2005	94.4	0.0	2.2	3.4
2006	95.9	0.0	1.3	2.7
2007	98.3	0.0	1.0	0.7
2008	98.6	0.2	0.9	0.3
2009	94.7	0.0	2.1	3.2
2010	95.1	0.0	0.8	4.0
2011	92.9	0.0	1.2	6.0
2012	91.0	0.0	0.6	8.4
2013	89.2	0.0	0.9	9.9
2014	93.4	0.0	1.9	4.8
2015	98.8	0.0	0.8	0.4
2016	98.5	0.0	1.0	0.5
2017	97.7	0.0	1.0	1.2
2018	98.0	0.0	1.1	1.0

Table 3. Landings by market category (Sm = small + peewee; Md=medium; Lg=large+jumbo; Un=unclassified) for statistical areas 511-515,521-522, 525-526, 561-562 for American plaice.

YEAR	Quarter 1				Quarter 2				Quarter 3				Quarter 4			
	Sm	Md	Lg	Un	Sm	Md	Lg	Un	Sm	Md	Lg	Un	Sm	Md	Lg	Un
1980	565	0	1527	3	1398	0	3667	100	1026	0	2399	16	479	0	1488	1
1981	730	0	1775	26	1233	0	3557	253	993	0	2209	34	457	0	1532	2
1982	581	0	1468	11	1353	5	4350	318	1191	524	2643	131	571	299	1570	40
1983	580	356	1624	5	1488	713	3148	57	1027	497	1816	18	399	276	1090	3
1984	431	247	1071	10	954	649	2355	27	812	479	1444	19	372	309	909	13
1985	512	253	708	14	709	511	1548	22	503	369	1046	13	239	188	521	9
1986	187	132	409	13	539	350	1014	33	342	201	536	11	202	146	349	6
1987	169	108	304	20	460	275	744	43	367	203	475	20	199	126	246	35
1988	203	94	279	39	447	244	529	75	433	186	303	47	155	88	143	36
1989	117	76	158	25	300	208	423	68	222	126	222	29	139	81	135	21
1990	101	66	142	19	269	194	317	49	323	196	273	20	190	118	146	19
1991	138	78	116	20	594	347	367	61	773	378	353	40	435	263	241	41
1992	302	174	291	35	902	634	805	112	887	624	674	80	426	278	394	17
1993	277	183	413	17	706	516	868	81	589	371	602	27	423	232	401	14
1994	236	120	243	22	685	434	711	15	695	387	506	8	437	218	345	6
1995	214	117	198	10	811	425	584	29	800	287	326	9	436	178	215	4
1996	240	108	180	4	807	343	434	22	913	242	253	10	491	159	183	3
1997	322	99	158	2	694	390	360	56	547	403	244	15	318	176	137	2
1998	175	147	153	2	637	478	391	30	404	336	264	5	221	178	232	6
1999	162	163	225	4	395	330	368	13	352	233	242	2	262	178	199	3
2000	183	181	225	1	428	389	373	14	657	390	326	8	396	308	324	10
2001	240	220	332	18	527	430	439	21	593	359	325	4	378	253	282	3
2002	314	243	310	2	343	270	260	18	510	243	216	3	313	184	184	2
2003	210	136	175	2	247	209	152	11	391	216	152	3	224	158	143	0
2004	155	89	107	3	153	103	99	5	307	185	119	2	173	114	98	0
2005	142	90	97	2	142	112	75	4	202	89	69	7	159	83	74	1
2006	135	72	82	1	96	87	58	6	142	87	71	1	131	57	79	2
2007	99	40	55	2	117	59	43	9	207	65	44	2	139	57	56	2
2008	118	52	66	5	115	45	29	5	230	65	40	3	205	58	71	2
2009	220	55	92	0	163	38	25	3	291	76	48	4	241	57	81	3
2010	233	68	101	16	133	38	23	14	245	68	34	43	230	59	43	63
2011	190	61	42	53	164	45	27	22	236	53	24	44	254	74	45	52
2012	206	76	98	0	215	57	35	26	264	92	35	48	198	97	36	54
2013	152	65	46	42	172	86	34	25	216	90	27	41	186	122	40	71
2014	134	70	44	56	153	99	40	33	188	118	43	38	119	85	54	73
2015	86	37	34	68	161	73	58	36	136	81	58	34	109	77	85	95
2016	99	53	55	80	101	56	65	49	57	38	45	20	68	65	88	68
2017	114	83	70	67	138	72	65	33	89	48	46	48	117	63	95	85
2018	127	55	37	60	159	64	47	40	108	54	30	43	107	71	45	67

Table 4. Sampling of American plaice commercial landings, by market category, for the Gulf of Maine and Georges Bank areas (NAFO Division 5Y and 5Z), 2011-2018. Outline indicates samples pooled to estimate landings at age.

		Small				Medium				Large				Number of tons landed / sample		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Sm.	Med.	Lrg.
2011	GB	4	7	4	1	3	3	5	3	3	6	5	2	27	9	4
	GM	1	4	4	6	3	3	3	3	4	9	3	6			
	total	5	11	8	7	6	6	8	6	7	15	8	8			
2012	GB	4	3	1	2	6	4	2	1	7	8	4	7	28	10	5
	GM	6	3	8	5	3	3	7	6	4	2	8	5			
	total	10	6	9	7	9	7	9	7	11	10	12	12			
2013	GB	1	4	4	4	4	7	4	6	7	5	4	6	27	12	4
	GM	4	3	3	4	3	2	3	2	4	4	3	4			
	total	5	7	7	8	7	9	7	8	11	9	7	10			
2014	GB	2	4	2	7	4	3	2	4	4	3	2	6	26	18	7
	GM	1	1	3	3	1	3	2	2	4	4	1	3			
	total	3	5	5	10	5	6	4	6	8	7	3	9			
2015	GB	1	5	0	6	2	2	3	4	6	2	3	4	15	9	8
	GM	6	4	5	6	4	6	6	4	2	5	3	5			
	total	7	9	5	12	6	8	9	8	8	7	6	9			
2016	GB	6	7	4	5	5	4	4	5	7	10	4	4	7	6	6
	GM	9	6	7	6	3	4	5	3	3	5	3	4			
	total	15	13	11	11	8	8	9	8	10	15	7	8			
2017	GB	6	8	8	6	3	5	5	4	4	4	6	3	8	8	8
	GM	8	7	7	6	4	4	5	3	5	5	4	4			
	total	14	15	15	12	7	9	10	7	9	9	10	7			
2018	GB	6	8	2	1	4	5	2	1	4	2	1	2	13	10	7
	GM	7	6	5	4	4	3	3	2	3	4	3	3			
	total	13	14	7	5	8	8	5	3	7	6	4	5			

Table 5. Discards of American plaice for Gulf of Maine and Georges Bank large and small mesh otter trawl, gillnet, shrimp and scallop fisheries; estimated using SBRM method.

Gulf of Maine													TOTAL		
Year	GM large mesh trawl			GM small mesh trawl			GM gillnet			GM shrimp			Gulf of Maine		
	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips
1989	632.1	0.31	38	52.1	0.37	23.0	4.8	0.21	84.0	381.6	0.22	40.0	1070.6	0.20	185
1990	813.1	0.64	26	152.8	1.12	8.0	56.0	0.44	120.0	535.0	0.18	31.0	1556.8	0.36	185
1991	1382.7	0.36	48	9.4	0.31	29.0	23.3	0.19	801.0	216.1	0.13	52.0	1631.4	0.31	930
1992	567.4	0.36	44	22.7	0.53	15.0	29.9	0.12	896.0	126.8	0.19	82.0	746.8	0.28	1037
1993	317.4	0.42	17	0.0		6.0	50.3	0.14	560.0	30.9	0.23	81.0	398.6	0.33	664
1994	559.5	0.91	6	0.0			37.6	0.68	85.0	33.7	0.22	77.0	630.8	0.81	168
1995	389.5	0.47	24	38.6	0.18	30.0	144.3	0.31	69.0	109.5	0.18	73.0	682.0	0.28	196
1996	209.3	0.79	11	53.4	0.13	41.0	62.8	0.50	46.0	141.2	0.28	35.0	466.8	0.37	133
1997	389.8	0.57	5	95.1	0.00	3.0	72.6	0.49	33.0	44.8	0.21	16.0	602.3	0.37	57
1998	490.9	1.10	5	0.0			14.3	0.37	78.0	28.7*			505.2	1.07	83
1999	573.7	0.38	22	6.2	0.63	11.0	9.0	0.62	73.0	26.0*			588.9	0.37	106
2000	65.6	0.33	80	0.0			23.3	0.33	81.0	32.9*			88.9	0.26	161
2001	196.8	0.38	112	24.1	0.00	4.0	20.1	0.54	47.0	29.5*	0.37	3.0	248.4	0.31	166
2002	169.5	0.46	150	15.1	0.28	34.0	4.1	0.31	80.0	3.0*			188.8	0.41	264
2003	180.3	0.14	251	8.4	0.31	19.0	5.8	0.37	295.0	22.0	0.27	15.0	216.6	0.12	580
2004	250.9	0.32	251	7.4	0.23	70.0	3.5	0.28	775.0	6.1	0.32	12.0	268.0	0.30	1108
2005	204.6	0.15	499	7.2	0.36	70.0	2.5	0.27	651.0	8.0	0.19	17.0	222.3	0.14	1237
2006	122.0	0.37	203	12.9	0.37	24.0	1.0	0.69	128.0	6.5	0.43	20.0	142.3	0.32	375
2007	61.8	0.14	225	6.0	0.23	16.0	1.6	0.43	118.0	13.0	0.29	14.0	82.4	0.12	373
2008	94.1	0.14	254	4.5	0.40	12	3.0	0.23	150	11.3	0.29	19	112.8	0.12	435
2009	83.2	0.18	410	17.5	0.42	22	4.1	0.35	276	11.1	0.34	12	115.9	0.15	720
2010	140.9	0.08	609	54.6	0.45	30	3.1	0.11	1239	39.9	0.30	15	238.6	0.12	1893
2011	90.6	0.05	1005	2.6	0.48	24	3.0	0.07	1438	13.8	0.00	1	110.0	0.04	2468
2012	122.6	0.06	1120	4.0	0.28	31	2.7	0.07	1180	31.4	0.31	19	160.7	0.07	2350
2013	75.2	0.08	642	8.9	0.16	63	1.9	0.15	516	1.7	0.37	24	87.7	0.07	1245
2014	31.9	0.07	617	3.0	0.21	50	1.3	0.14	755	0.0			36.1	0.07	1422
2015	38.1	0.10	395	2.2	0.26	128	1.0	0.24	311	0.0			42.5	0.03	834
2016	53.1	0.14	323	5.3	0.28	103	0.7	0.27	212	0.0			60.2	0.12	638
2017	67.7	0.14	289	2.9	0.25	202	0.6	0.39	158	0.0			71.3	0.13	649
2018	68.2	0.11	370	1.6	0.33	60	0.5	0.27	153	0.0			70.3	0.11	583

Table 5 continued . Discards of American plaice for Gulf of Maine and Georges Bank large and small mesh otter trawl, gillnet, shrimp and scallop fisheries; estimated using SBRM method.

Georges Bank												TOTAL			
Year	GB large mesh trawl			GB small mesh trawl			GB gill net			GB scallop,limited			Georges Bank		
	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips	mt	cv	# trips
1989	122.5	0.46	26	11.1	0.62	24	0.0		23	0.0			133.7	0.43	73
1990	81.4	0.79	25	5.8	0.69	16	0.1	0.72	29	0.0			87.3	0.74	70
1991	211.3	0.60	28	4.8	1.10	13	0.4	0.67	161	14.5	0.00	1	231.1	0.55	203
1992	60.2	0.50	29	1.9	1.39	13	0.1	0.91	137	3.1	0.44	10	65.2	0.46	189
1993	116.9	0.52	24	0.3	1.45	6	0.0	2.56	62	113.6	0.47	11	230.9	0.35	103
1994	47.7	1.13	26	0.0		2	0.0	2.63	38	2.4	1.11	7	50.2	1.08	73
1995	356.0	0.35	42	13.4	0.71	5	0.4	0.61	59	14.5	0.87	6	384.3	0.32	112
1996	143.5	0.69	18	4.4	0.00	3	1.0	0.96	29	1.5	0.38	13	150.4	0.66	63
1997	232.2	0.47	16	0.1	0.00	4	1.9	1.01	15	44.9	0.56	11	279.2	0.40	46
1998	81.5	2.05	5	0.0		1	0.4	1.48	43	48.4	0.61	9	130.2	1.30	58
1999	96.7	0.60	12	0.2	0.00	4	0.3	0.64	30	35.0	0.45	61	132.1	0.45	107
2000	156.2	0.32	21	40.0	1.06	6	0.7	0.98	44	39.6	0.25	227	236.6	0.28	298
2001	145.0	0.17	34	56.5	0.77	10	0.2	0.91	27	34.7	0.42	17	236.5	0.22	88
2002	99.9	0.24	70	2.5	0.81	17	0.0		22	3.0	1.17	11	105.3	0.23	120
2003	55.8	0.21	150	28.5	0.35	23	0.3	0.59	93	19.1	0.79	11	103.6	0.21	277
2004	75.4	0.15	211	7.8	0.59	32	0.4	0.39	180	2.6	0.67	41	86.1	0.14	464
2005	54.1	0.09	710	9.0	0.23	97	0.1	1.84	167	12.3	0.54	80	75.5	0.11	1054
2006	122.6	0.12	362	15.5	0.98	24	0.0		47	5.4	0.65	110	143.5	0.15	543
2007	149.5	0.12	373	6.8	0.47	17	1.2	1.95	115	6.5	0.47	106	164.1	0.12	611
2008	130.4	0.10	489	3.4	0.76	9	0.1	0.54	70	10.0	0.30	100	144.0	0.09	668
2009	243.3	0.14	398	6.3	0.82	29	0.5	0.53	52	24.3	0.20	73	274.3	0.13	552
2010	120.7	0.12	396	31.0	0.86	40	0.2	0.27	441	0.4	0.90	55	152.2	0.20	932
2011	92.6	0.07	506	6.2	0.70	31	0.0	0.23	375	3.0	0.37	91	102.0	0.08	1003
2012	114.1	0.08	376	4.7	0.31	17	0.0	0.33	281	4.4	0.31	182	123.2	0.08	856
2013	50.3	0.09	312	3.4	0.35	51	0.0	0.36	235	10.7	0.26	174	64.4	0.09	772
2014	43.5	0.09	311	4.2	0.50	39	0.0	0.37	366	5.0	0.42	92	52.7	0.09	808
2015	29.3	0.13	250	0.2	0.66	47	0.1	0.44	266	12.1	0.25	99	41.7	0.11	662
2016	23.2	0.14	157	2.0	0.90	32	0.0	0.13	79	13.3	0.49	88	38.6	0.19	356
2017	18.8	0.13	163	0.3	0.79	65	0.2	0.82	126	3.6	0.50	140	22.9	0.13	494
2018	9.0	0.19	101	7.7	0.46	63	0.0	0.92	54	21.5	0.24	222	38.3	0.17	440

Table 6. Total catch (US and CA commercial landings (metric tons, live weight) and US discards) of American plaice from the Gulf of Maine, Georges Bank, Southern New England, and the Mid-Atlantic (NAFO Div. 5Y, 5Z and 6).

Year	Gulf of Maine					Georges Bank					Southern New England			Mid-Atlantic			Grand Total		
	Landings	Discards	CA Lnd	Catch		Landings	Discards	CA Landings	Catch		Landings	Catch		Landings	Catch		Landings	Discards	Catch
1960	621		1.0	621		689		0	689		-	0		0.0	0		1311	0	1311
1961	692		0.0	692		830		0	830		-	0		0.0	0		1522	0	1522
1962	694		0.0	694		1277		44	1277		-	0		0.0	0		2015	0	2015
1963	693		0.0	693		1640		127	1640		-	0		0.0	0		2460	0	2460
1964	811		0.0	811		2988		177	2988		-	0		0.0	0		3976	0	3976
1965	967		0.0	967		2668		180	2668		-	0		0.0	0		3815	0	3815
1966	957		2.0	957		2910		242	2910		-	0		0.0	0		4111	0	4111
1967	1072		6.0	1072		3397		203	3397		-	0		4	4		4682	0	4682
1968	909		5.0	909		2066		173	2066		782	782		20	20		3955	0	3955
1969	1066		7.0	1066		1889		71	1889		854	854		130	130		4017	0	4017
1970	895		0.0	895		3280		92	3280		146	146		8	8		4421	0	4421
1971	653		5.0	653		2073		38	2073		329	329		8	8		3106	0	3106
1972	569		0.0	569		1602		22	1602		74	74		0	0		2267	0	2267
1973	687		0.0	687		1237		38	1237		163	163		0	0		2125	0	2125
1974	947		2.0	947		1084		27	1084		96	96		0	0		2156	0	2156
1975	1507		0.0	1507		1086		25	1086		3	3		0	0		2621	0	2621
1976	2550		0.0	2550		975		24	975		10	10		1	1		3560	0	3560
1977	5647		0.0	5647		1493		35	1493		84	84		7	7		7266	0	7266
1978	7317		30.0	7317		2270		77	2270		15	15		8	8		9717	0	9717
1979	8835		0.0	8835		2501		23	2501		20	20		4	4		11383	0	11383
1980	11139	845	0.0	11984		2447		43	2447		10	10		1	1		13640	845	14485
1981	10328	288	1.0	10616		2499		15	2499		28	28		46	46		12917	288	13205
1982	11147	414	0.0	11561		3963		27	3963		37	37		9	9		15183	414	15597
1983	9149	534	7.0	9683		3985		30	3985		40	40		4	4		13215	534	13749
1984	6835	619	2.0	7454		3283		6	3283		17	17		7	7		10150	619	10769
1985	4767	236	1.0	5003		2289		40	2289		12	12		2	2		7111	236	7347
1986	3319	290	0.0	3609		1180		34	1180		4	4		3	3		4540	290	4830
1987	2766	463	0.0	3229		1080		48	1080		2	2		1	1		3897	463	4360
1988	2271	349	0.0	2620		1205		108	1205		13	13		1	1		3598	349	3947
1989	1646	1070	0.0	2716		771	134	68	905		1	1		3	3		2489	1204	3693
1990	1802	1557	0.0	3359		691	87	52	778		2	2		2	2		2549	1644	4193
1991	2936	1631	0.0	4567		1336	231	26	1567		15	15		0	0		4313	1863	6176
1992	4564	747	0.0	5311		1841	65	3	1906		10	10		4	4		6422	812	7234
1993	3866	399	0.0	4265		1839	231	0	2070		11	11		4	4		5720	629	6349
1994	3553	631	0.0	4183		1418	50	30	1468		29	29		8	8		5037	681	5718
1995	3132	682	0.0	3814		1445	384	2	1829		34	34		8	8		4621	1066	5687
1996	3018	466	0.0	3484		1312	150	2	1462		31	31		4	4		4367	616	4983
1997	2306	602	0.0	2909		1611	279	65	1891		37	37		1	1		4020	881	4902
1998	2290	534	0.0	2824		1337	130	20	1467		20	20		4	4		3671	664	4335
1999	1631	615	0.0	2246		1572	132	123	1705		23	23		5	5		3354	747	4101

Table 6 continued. Total catch (US and CA commercial landings (metric tons, live weight) and US discards) of American plaice from the Gulf of Maine, Georges Bank, Southern New England, and the Mid-Atlantic (NAFO Div. 5Y, 5Z and 6).

Year	Gulf of Maine					Georges Bank					Southern New England			Mid-Atlantic			Grand Total		
	Landings	Discards	CA Lnd	Catch		Landings	Discards	CA Landings	Catch		Landings	Catch		Landings	Catch		Landings	Discards	Catch
2000	2594	122	0.0	2715		1715	237	143	1951		22	22		9	9		4482	358	4841
2001	2736	271	0.4	3007		1668	236	50	1905		44	44		2	2		4501	507	5008
2002	2006	192	0.5	2198		1472	105	99	1578		15	15		5	5		3597	297	3895
2003	1520	216	0.1	1736		934	104	60	1038		29	29		3	3		2547	320	2867
2004	1046	268	0.1	1314		636	86	3	722		28	28		4	4		1716	354	2070
2005	753	213	0.3	965		574	75	5	649		13	13		2	2		1348	288	1636
2006	583	142	0.0	725		504	143	11	648		17	17		1	1		1116	286	1402
2007	601	82	0.1	684		377	164	2	541		6	6		6	6		992	246	1238
2008	703	113	0.2	816		388	144	0	532		4	4		5	5		1101	257	1357
2009	866	115	0.0	980		501	274	0	776		6	6		7	7		1381	389	1770
2010	902	239	0.1	1140		492	152	0	644		8	8		2	2		1405	391	1796
2011	771	96	0.0	867		595	102	1	697		2	2		1	1		1370	198	1569
2012	763	161	0.1	923		699	123	0	822		1	1		0	0		1463	284	1747
2013	764	88	0.0	852		528	64	0	592		2	2		4	4		1297	152	1449
2014	763	0	0.1	763		699	53	0	751		2	2		0	0		1464	53	1517
2015	828	43	0.0	871		400	42	0	442		2	2		0	0		1230	85	1315
2016	718	60	0.0	778		287	39	0	326		3	3		0	0		1008	99	1107
2017	871	71	0.0	942		259	23	0	282		1	1		3	3		1134	94	1228
2018	911	70	0.0	981		171	38	0	209		0	0		4	4		1086	109	1195

Table 7a. Commercial landings (thousands of fish; metric tons), mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Age													Age												
Year	1	2	3	4	5	6	7	8	9	10	11+	Total	Year	1	2	3	4	5	6	7	8	9	10	11+	Total
Landings in Numbers (000's) at Age													Landings in Weight (Tons) at Age												
1980	0	0	22	770	3129	3903	3629	1185	1139	850	1380	16007	1980	0	0	6	271	1387	2562	3008	1232	1347	1168	2616	13597
1981	0	587	1332	4332	5101	3619	2381	1574	645	440	621	20632	1981	0	78	276	1485	2318	2832	2122	1545	729	552	963	12901
1982	0	113	2134	3495	4296	3482	3293	2038	1256	737	718	21563	1982	0	23	620	1166	1845	2007	3164	2320	1502	1144	1364	15156
1983	0	1	437	3732	4267	3807	2251	1270	697	449	911	17822	1983	0	0	149	1718	2482	2594	1863	1325	867	650	1530	13178
1984	0	3	253	1298	4819	2865	1913	577	274	307	769	13078	1984	0	1	84	549	2913	1957	1713	688	310	421	1506	10142
1985	0	0	60	786	2066	2787	2213	1081	438	267	182	9881	1985	0	0	13	212	747	1516	1884	1263	603	445	387	7070
1986	0	1	198	1082	1502	1462	1307	631	255	105	100	6644	1986	0	0	53	349	616	864	1101	741	380	183	219	4506
1987	0	15	343	486	1703	1271	891	541	187	62	60	5557	1987	0	3	97	187	809	797	797	636	278	107	137	3849
1988	0	1	446	1148	1456	1427	543	270	177	88	55	5612	1988	0	0	126	413	689	922	484	333	247	151	124	3490
1989	0	0	76	451	686	504	749	469	193	103	116	3346	1989	0	0	26	177	335	295	553	403	257	150	224	2421
1990	0	0	202	846	1049	500	290	349	193	96	161	3687	1990	0	0	78	355	548	330	240	338	210	125	273	2497
1991	0	0	23	1862	2835	1112	321	165	202	98	105	6723	1991	0	0	8	844	1541	795	309	192	258	150	190	4287
1992	0	0	46	739	4872	2563	813	191	131	118	93	9566	1992	0	0	22	314	2624	1896	774	237	173	193	188	6419
1993	0	0	123	1029	2037	2452	1382	265	287	151	125	7851	1993	0	0	51	463	1055	1591	1306	327	400	238	289	5720
1994	0	23	196	898	1869	1264	1157	598	235	150	291	6680	1994	0	3	47	384	991	793	921	647	303	213	705	5007
1995	0	0	141	713	2862	1734	642	579	210	53	50	6983	1995	0	0	50	299	1472	1134	527	648	281	111	96	4619
1996	0	100	174	2496	2378	1401	529	240	124	35	64	7540	1996	0	17	59	1009	1226	911	487	288	171	55	142	4365
1997	0	0	2	1260	2584	1540	613	182	85	66	116	6449	1997	0	0	0	535	1230	980	504	205	114	104	282	3955
1998	0	0	6	174	1497	1893	999	318	60	57	155	5158	1998	0	0	2	69	654	1099	825	328	80	83	510	3651
1999	0	0	2	224	988	1668	1160	443	148	42	79	4753	1999	0	0	0	98	484	989	873	410	164	61	151	3231
2000	0	0	113	417	1432	2120	1715	566	138	70	20	6591	2000	0	0	46	173	703	1236	1323	571	151	99	37	4339
2001	0	0	0	394	1912	2003	1523	899	289	57	46	7123	2001	0	0	0	174	878	1088	1084	760	306	82	78	4451
2002	0	0	3	330	1079	1674	1162	504	275	158	177	5362	2002	0	0	1	134	498	876	790	454	293	197	255	3498
2003	0	0	0	127	767	1076	700	513	262	150	106	3701	2003	0	0	0	51	341	606	488	439	255	166	141	2487
2004	0	0	7	126	468	857	448	358	195	78	74	2610	2004	0	0	2	56	222	479	310	284	191	79	90	1713
2005	0	0	3	195	604	595	400	173	100	44	50	2163	2005	0	0	1	81	292	337	275	152	95	47	64	1343
2006	0	0	2	170	496	405	296	178	98	56	43	1744	2006	0	0	1	73	239	237	200	152	90	57	56	1105
2007	0	0	24	309	594	411	210	96	58	23	24	1749	2007	0	0	9	125	280	233	141	80	58	28	34	990
2008	0	0	36	191	549	474	306	153	91	87	60	1946	2008	0	0	14	83	268	250	189	101	70	63	62	1100
2009	0	0	0	136	604	637	433	362	126	45	89	2433	2009	0	0	0	60	284	346	251	216	92	39	94	1380
2010	0	0	44	280	319	773	535	214	106	104	78	2451	2010	0	0	15	130	158	410	328	148	78	63	75	1404
2011	0	0	0	90	259	707	701	374	90	54	47	2323	2011	0	0	0	42	138	395	409	238	65	39	42	1369
2012	0	0	31	68	300	382	601	627	262	84	92	2446	2012	0	0	15	30	145	216	359	379	180	61	77	1463
2013	0	0	21	135	306	459	332	401	327	166	77	2224	2013	0	0	8	60	150	247	199	243	208	104	78	1297
2014	0	0	27	245	341	232	589	184	181	139	138	2075	2014	0	0	10	106	166	133	342	123	127	113	118	1239
2015	0	0	59	281	390	309	249	334	109	142	137	2010	2015	0	0	24	135	208	181	158	221	87	103	114	1231
2016	0	0	32	183	293	267	177	112	197	66	188	1516	2016	0	0	14	89	161	167	123	82	149	58	165	1009
2017	0	0	5	329	356	303	219	100	108	132	149	1701	2017	0	0	2	151	199	193	151	81	93	112	153	1134
2018	26	88	169	179	465	350	281	173	125	79	189	2124	2018	1	10	29	49	208	183	170	114	93	65	165	1086

Table 7a continued. Commercial landings, (thousands of fish; metric tons), mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Age													Age												
Year	1	2	3	4	5	6	7	8	9	10	11+	Mean	Year	1	2	3	4	5	6	7	8	9	10	11+	Mean
Landings Mean Weight (kg) at Age													Landings Mean Length (cm) at Age												
1980	0.000	0.000	0.285	0.352	0.443	0.656	0.829	1.039	1.183	1.374	1.895	0.849	1980	0.0	0.0	32.6	34.7	37.1	41.7	44.8	47.9	49.9	52.2	57.3	44.1
1981	0.000	0.133	0.207	0.343	0.454	0.783	0.891	0.982	1.130	1.254	1.551	0.625	1981	0.0	25.8	28.8	34.0	36.9	43.3	45.2	46.7	48.8	50.3	53.8	39.4
1982	0.000	0.200	0.291	0.334	0.429	0.577	0.961	1.138	1.196	1.552	1.901	0.703	1982	0.0	29.0	32.4	33.7	36.4	39.5	46.3	48.8	49.9	53.9	57.3	40.8
1983	0.000	0.184	0.341	0.460	0.582	0.682	0.828	1.043	1.244	1.446	1.680	0.740	1983	0.0	28.7	34.2	37.2	39.8	41.9	44.2	47.5	50.2	52.9	54.9	42.2
1984	0.000	0.180	0.331	0.423	0.605	0.683	0.895	1.192	1.133	1.369	1.958	0.775	1984	0.0	28.5	33.9	36.3	40.3	41.8	45.3	49.9	49.3	52.2	59.0	42.8
1985	0.000	0.000	0.221	0.270	0.362	0.544	0.852	1.167	1.377	1.665	2.128	0.716	1985	0.0	0.0	30.0	31.9	34.6	39.1	45.0	49.6	52.0	55.2	59.3	41.4
1986	0.000	0.191	0.267	0.322	0.410	0.591	0.842	1.174	1.491	1.747	2.194	0.678	1986	0.0	29.0	31.9	33.6	36.0	40.1	44.6	49.5	53.3	56.0	59.9	40.7
1987	0.000	0.201	0.284	0.386	0.475	0.627	0.895	1.177	1.483	1.732	2.284	0.693	1987	0.0	29.4	32.5	35.5	37.8	41.0	45.6	49.5	53.3	55.8	60.7	41.3
1988	0.000	0.151	0.282	0.360	0.473	0.646	0.893	1.231	1.396	1.717	2.238	0.622	1988	0.0	27.0	32.4	34.8	37.6	41.4	45.6	50.4	52.3	55.7	60.2	39.9
1989	0.000	0.000	0.339	0.393	0.489	0.586	0.739	0.858	1.334	1.463	1.940	0.724	1989	0.0	0.0	34.3	35.8	38.2	40.2	43.0	44.6	51.5	52.9	57.6	41.9
1990	0.000	0.000	0.384	0.420	0.522	0.660	0.826	0.968	1.089	1.305	1.696	0.677	1990	0.0	0.0	35.6	36.5	38.9	41.6	44.5	46.7	48.3	51.1	55.3	41.3
1991	0.000	0.000	0.333	0.453	0.543	0.715	0.963	1.161	1.276	1.541	1.813	0.638	1991	0.0	0.0	34.2	37.4	39.4	42.6	46.6	49.3	50.6	53.9	56.3	40.8
1992	0.000	0.000	0.473	0.424	0.538	0.739	0.953	1.240	1.319	1.640	2.007	0.671	1992	0.0	0.0	38.0	36.7	39.2	43.1	46.4	50.5	51.4	54.9	58.3	41.5
1993	0.000	0.000	0.416	0.451	0.518	0.649	0.945	1.234	1.394	1.577	2.313	0.729	1993	0.0	0.0	36.5	37.3	38.8	41.4	46.6	50.5	52.4	54.4	60.4	42.3
1994	0.000	0.138	0.239	0.427	0.530	0.627	0.796	1.083	1.289	1.424	2.424	0.749	1994	0.0	26.2	30.4	36.7	39.2	41.2	44.2	48.6	51.2	52.6	61.4	42.3
1995	0.000	0.000	0.359	0.420	0.517	0.685	0.914	1.168	1.099	2.105	1.921	0.676	1995	0.0	0.0	35.0	36.6	38.8	41.6	44.6	49.0	51.7	59.4	57.7	41.3
1996	0.000	0.166	0.339	0.404	0.516	0.650	0.919	1.202	1.383	1.565	2.242	0.579	1996	0.0	27.7	34.1	36.2	38.8	41.4	46.1	50.0	52.1	54.3	60.3	39.5
1997	0.000	0.000	0.214	0.424	0.476	0.636	0.822	1.127	1.336	1.570	2.425	0.613	1997	0.0	0.0	30.0	36.7	37.9	41.3	44.5	49.0	51.7	54.2	61.1	40.2
1998	0.000	0.000	0.343	0.395	0.437	0.581	0.826	1.031	1.350	1.463	3.293	0.708	1998	0.0	0.0	34.5	35.9	37.0	40.1	44.7	47.8	51.8	53.0	67.1	41.5
1999	0.000	0.000	0.255	0.437	0.490	0.593	0.753	0.925	1.113	1.462	1.908	0.680	1999	0.0	0.0	31.6	36.9	38.2	40.4	43.4	46.2	48.9	52.9	57.3	41.7
2000	0.000	0.000	0.409	0.416	0.491	0.583	0.772	1.008	1.094	1.411	1.864	0.658	2000	0.0	0.0	36.4	36.4	38.2	40.1	43.5	47.2	48.6	52.5	57.1	41.3
2001	0.000	0.000	0.000	0.443	0.459	0.543	0.712	0.845	1.059	1.455	1.684	0.625	2001	0.0	0.0	0.0	37.1	37.5	39.3	42.6	44.7	47.8	53.1	55.3	40.6
2002	0.000	0.000	0.295	0.407	0.462	0.523	0.679	0.901	1.067	1.246	1.443	0.652	2002	0.0	0.0	33.0	36.3	37.6	39.0	42.1	45.9	48.3	50.6	52.8	41.1
2003	0.000	0.000	0.000	0.402	0.445	0.563	0.697	0.855	0.976	1.105	1.322	0.672	2003	0.0	0.0		36.1	37.2	39.8	42.4	45.1	46.7	48.4	51.1	41.5
2004	0.000	0.000	0.339	0.447	0.474	0.559	0.692	0.793	0.980	1.015	1.211	0.656	2004	0.0	0.0	34.4	37.3	37.9	39.7	42.2	43.8	46.7	47.3	49.7	41.3
2005	0.000	0.000	0.432	0.414	0.483	0.566	0.688	0.876	0.947	1.074	1.277	0.621	2005	0.0	0.0	37.0	36.4	38.1	39.8	42.1	45.4	46.3	48.0	50.8	40.6
2006	0.000	0.000	0.326	0.431	0.482	0.585	0.677	0.850	0.923	1.028	1.301	0.634	2006	0.0	0.0	34.0	36.9	38.1	40.2	42.0	44.9	45.9	47.5	50.9	40.9
2007	0.000	0.000	0.387	0.407	0.472	0.566	0.673	0.838	1.003	1.196	1.450	0.566	2007	0.0	0.0	35.8	36.2	37.9	39.8	41.8	44.7	46.9	49.9	52.8	39.5
2008	0.000	0.000	0.378	0.434	0.489	0.528	0.616	0.662	0.770	0.730	1.035	0.565	2008	0.0	0.0	35.5	36.9	38.2	39.1	40.9	41.6	43.5	42.6	47.6	39.7
2009	0.000	0.000	0.367	0.437	0.469	0.543	0.579	0.596	0.726	0.861	1.050	0.567	2009	0.0	0.0		37.0	37.8	39.3	40.1	40.4	42.9	45.1	47.9	39.7
2010	0.000	0.000	0.355	0.464	0.496	0.530	0.613	0.691	0.731	0.609	0.965	0.573	2010	0.0	0.0	34.9	37.7	38.3	39.1	40.9	42.1	42.7	40.4	46.4	39.8
2011	0.000	0.000	0.000	0.468	0.534	0.559	0.583	0.635	0.717	0.73	0.892	0.589	2011	0.0	0.0		37.8	39.3	39.8	40.2	41.2	42.5	42.8	45.4	40.3
2012	0.000	0.000	0.492	0.441	0.483	0.566	0.598	0.604	0.689	0.729	0.841	0.598	2012	0.0	0.0	38.4	37.1	38.1	39.9	40.4	40.5	42.0	42.3	44.6	40.4
2013	0.000	0.000	0.399	0.442	0.492	0.537	0.597	0.606	0.637	0.63	1.008	0.583	2013	0.0	0.0	35.9	37.1	38.3	39.3	40.5	40.6	41.2	40.9	45.7	40.0
2014	0.000	0.000	0.379	0.432	0.487	0.574	0.58	0.671	0.704	0.813	0.858	0.597	2014	0.0	0.0	35.2	36.7	38.1	40.0	40.1	41.9	42.4	44.5	44.5	40.3
2015	0.000	0.000	0.406	0.481	0.533	0.583	0.636	0.662	0.795	0.727	0.833	0.612	2015	0.0	0.0	36.2	38.0	39.1	40.2	41.1	41.7	44.0	42.6	44.3	40.6
2016	0.000	0.000	0.426	0.489	0.549	0.623	0.697	0.738	0.758	0.881	0.877	0.666	2016	0.0	0.0	36.5	38.0	39.5	40.9	42.3	42.9	43.3	45.2	44.9	41.5
2017	0.000	0.000	0.419	0.458	0.559	0.635	0.690	0.811	0.858	0.852	1.022	0.667	2017	0.0	0.0	36.4	37.5	39.7	41.3	42.2	44.4	45.1	44.9	47.5	41.6
2018	0.021	0.113	0.168	0.277	0.447	0.525	0.603	0.657	0.742	0.821	0.875	0.511	2018	14.7	24.2	27.5	31.1	36.7	38.4	40.1	41.3	42.8	44.2	45.0	37.2

Table 7b. Northern shrimp fishery discards, (thousands of fish; metric tons) mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Age													Age												
Year	1	2	3	4	5	6	7	8	9	10	11+	Total	Year	1	2	3	4	5	6	7	8	9	10	11+	Total
Shrimp Discards in Numbers (000's) at Age													Shrimp Discards in Weight (Tons) at Age												
1980	0.0	0.0	114.0	115.1	28.7	0.0	0.0	0.0	0.0	0.0	0.0	258	1980	0.0	0.0	11.9	19.6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5
1981	0.9	147.8	364.4	287.2	79.6	0.4	0.0	2.9	0.0	0.0	0.0	883	1981	0.0	5.9	31.9	43.4	15.2	0.1	0.0	0.7	0.0	0.0	0.0	97.3
1982	6.9	154.7	545.6	632.7	105.9	95.7	4.2	0.0	0.0	0.0	0.0	1546	1982	0.1	4.6	49.4	87.9	20.9	17.2	1.0	0.0	0.0	0.0	0.0	181.1
1983	14.0	614.3	641.0	760.7	319.9	51.0	5.9	0.0	0.7	0.0	0.0	2408	1983	0.2	18.0	58.3	103.4	53.4	9.8	1.1	0.0	0.2	0.0	0.0	244.3
1984	2.5	302.0	488.3	575.1	494.6	98.1	5.9	2.8	0.0	0.0	0.0	1969	1984	0.0	9.5	35.4	73.2	73.2	17.5	1.2	0.7	0.0	0.0	0.0	210.6
1985	53.9	103.2	930.9	464.9	307.8	79.0	14.8	0.0	0.0	0.0	0.0	1955	1985	0.8	4.4	63.2	56.2	44.4	16.7	2.9	0.0	0.0	0.0	0.0	188.6
1986	53.7	552.0	399.9	933.5	131.9	9.9	0.0	0.1	0.0	0.0	0.0	2081	1986	0.7	20.5	31.2	129.5	24.1	2.0	0.0	0.0	0.0	0.0	0.0	208.1
1987	31.4	439.1	1107.6	609.5	338.4	12.8	0.7	0.0	0.0	0.0	0.0	2540	1987	0.3	12.7	83.0	80.3	66.1	3.2	0.2	0.0	0.0	0.0	0.0	245.8
1988	283.1	587.4	786.4	408.4	90.8	11.8	10.1	0.0	0.0	0.0	0.0	2178	1988	4.4	22.4	66.6	54.6	15.9	3.0	2.1	0.0	0.0	0.0	0.0	168.9
1989	14.6	1575.6	1377.4	726.6	224.5	99.2	22.3	6.6	0.0	0.0	0.0	4047	1989	0.1	50.7	122.1	130.4	50.8	20.1	5.1	2.3	0.0	0.0	0.0	381.5
1990	0.0	898.8	2945.8	989.3	208.1	33.1	13.4	10.7	0.1	0.0	0.0	5099	1990	0.0	35.9	272.4	160.7	50.3	9.0	3.7	2.8	0.0	0.0	0.0	534.9
1991	0.4	209.4	566.6	623.4	133.8	6.4	0.1	0.0	0.0	0.0	0.0	1540	1991	0.0	5.5	50.9	119.3	37.9	2.5	0.1	0.0	0.0	0.0	0.0	216.1
1992	9.8	246.8	662.1	217.7	89.7	2.9	4.0	0.0	0.0	0.0	0.0	1233	1992	0.1	8.0	53.2	39.4	23.6	1.3	1.3	0.0	0.0	0.0	0.0	126.8
1993	21.5	274.7	123.4	35.6	8.6	2.5	0.1	0.0	0.0	0.0	0.0	466	1993	0.1	8.4	12.4	6.7	2.2	1.0	0.0	0.0	0.0	0.0	0.0	30.9
1994	58.1	858.4	98.9	22.5	6.5	2.1	1.7	0.2	0.2	0.0	0.0	1049	1994	0.3	19.3	8.2	3.4	1.3	0.3	0.2	0.2	0.3	0.0	0.0	33.7
1995	42.3	2081.0	571.1	49.3	13.5	3.3	0.3	0.2	0.0	0.0	0.0	2761	1995	0.3	52.6	42.1	9.3	3.8	1.2	0.1	0.1	0.0	0.0	0.0	109.4
1996	12.4	782.9	542.1	507.7	85.0	23.5	8.4	0.0	0.0	0.0	0.0	1962	1996	0.0	17.9	30.2	62.0	20.9	7.2	2.1	0.0	0.0	0.0	0.0	140.4
1997	14.7	626.6	128.0	120.4	55.2	8.5	0.3	0.0	0.0	0.0	0.0	954	1997	0.1	12.3	8.4	12.9	9.3	1.6	0.1	0.0	0.0	0.0	0.0	44.8
1998	37.2	61.3	127.0	78.3	48.7	7.3	1.3	0.0	0.0	0.0	0.0	361	1998	0.5	1.7	7.8	8.3	8.2	1.8	0.3	0.0	0.0	0.0	0.0	28.7
1999	4.2	200.0	73.6	79.0	41.5	26.0	6.8	0.6	0.0	0.0	0.0	432	1999	0.0	3.4	3.2	7.9	5.1	4.4	1.8	0.2	0.0	0.0	0.0	26.0
2000	2.7	292.0	191.9	57.6	36.6	11.3	6.4	0.2	0.0	0.0	0.0	599	2000	0.0	5.2	11.4	6.5	5.6	2.5	1.5	0.1	0.0	0.0	0.0	32.9
2001	0.0	84.7	274.1	82.9	39.2	11.8	5.0	0.5	0.1	0.0	0.0	498	2001	0.0	1.5	10.9	8.6	5.1	2.0	1.2	0.2	0.0	0.0	0.0	29.5
2002	0.7	3.2	16.0	16.1	3.6	0.9	0.2	0.1	0.0	0.0	0.0	41	2002	0.0	0.1	0.7	1.4	0.6	0.2	0.0	0.0	0.0	0.0	0.0	3.0
2003	10.2	667.8	11.7	11.5	5.4	1.1	0.0	0.6	0.0	0.4	1.0	710	2003	0.3	15.8	0.9	1.2	0.8	0.2	0.0	0.1	0.0	0.8	1.8	21.8
2004	4.5	110.9	36.7	6.7	1.7	1.4	0.5	0.2	0.2	0.1	0.1	163	2004	0.0	2.0	1.9	0.8	0.4	0.5	0.2	0.1	0.2	0.1	0.1	6.1
2005	34.0	270.9	34.1	3.6	0.9	0.1	0.3	0.0	0.0	0.0	0.5	344	2005	0.3	4.6	1.7	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.8	8.0
2006	24.3	54.2	17.8	6.0	2.6	1.3	0.5	0.4	0.4	0.2	0.3	108	2006	0.3	1.6	1.2	0.8	0.6	0.3	0.1	0.4	0.5	0.3	0.4	6.5
2007	160.7	212.4	35.3	9.1	3.8	0.9	0.3	0.1	0.0	0.0	0.0	423	2007	1.2	6.1	2.9	1.5	0.9	0.3	0.1	0.0	0.0	0.0	0.0	12.9
2008	14.2	48.5	45.0	28.7	10.1	2.6	0.9	0.1	0.0	0.0	0.0	150	2008	0.0	1.4	2.7	4.1	2.0	0.6	0.2	0.0	0.0	0.0	0.0	11.1
2009	0.0	35.5	46.4	54.8	14.6	1.6	0.5	0.0	0.0	0.0	0.0	153	2009	0.0	1.3	3.2	4.7	1.6	0.2	0.1	0.0	0.0	0.0	0.0	11.1
2010	0.0	483.2	309.7	31.7	37.1	16.6	1.8	0.0	0.0	0.0	0.0	880	2010	0.0	14.9	15.0	3.6	4.2	2.0	0.2	0.0	0.0	0.0	0.0	39.9
2011	1.9	184.5	120.6	29.2	14.0	2.9	2.2	1.2	0.5	0.2	0.2	357	2011	0.0	3.7	3.9	2.2	1.4	0.7	0.8	0.8	0.3	0.0	0.2	13.8
2012	4.4	428.5	275.2	66.4	32.0	6.6	5.0	2.7	1.1	0.3	0.5	823	2012	0.0	8.4	8.7	4.9	3.1	1.5	1.7	1.8	0.6	0.1	0.5	31.4
2013	0.1	9.3	14.9	2.9	1.0	1.2	0.2	0.2	0.1	0.0	0.0	30	2013	0.0	0.3	0.8	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	1.7
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 7b - continued. Northern shrimp fishery discards, (thousands of fish; metric tons) mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Year	Age											Mean
	1	2	3	4	5	6	7	8	9	10	11+	
Shrimp Discards Mean Weight (kg) at Age												
1980	0.000	0.000	0.104	0.170	0.210	0.359	0.000	0.000	0.000	0.000	0.000	0.145
1981	0.007	0.040	0.087	0.151	0.192	0.320	0.000	0.239	0.000	0.000	0.000	0.110
1982	0.014	0.030	0.091	0.139	0.197	0.180	0.239	0.000	0.000	0.000	0.000	0.111
1983	0.013	0.029	0.091	0.136	0.167	0.193	0.177	0.359	0.295	0.000	0.000	0.101
1984	0.004	0.032	0.072	0.127	0.148	0.178	0.198	0.239	0.000	0.000	0.000	0.107
1985	0.015	0.043	0.068	0.121	0.144	0.211	0.196	0.000	0.000	0.000	0.000	0.096
1986	0.014	0.037	0.078	0.139	0.183	0.204	0.000	0.359	0.000	0.000	0.000	0.100
1987	0.011	0.029	0.075	0.132	0.195	0.247	0.307	0.000	0.000	0.000	0.000	0.097
1988	0.016	0.038	0.085	0.134	0.175	0.253	0.209	0.000	0.000	0.000	0.000	0.078
1989	0.009	0.032	0.089	0.179	0.226	0.203	0.228	0.348	0.432	0.000	0.000	0.094
1990	0.000	0.040	0.092	0.162	0.242	0.272	0.275	0.261	0.472	0.000	0.000	0.105
1991	0.004	0.026	0.090	0.191	0.283	0.391	0.701	0.000	0.515	0.000	0.000	0.140
1992	0.006	0.032	0.080	0.181	0.263	0.443	0.323	0.000	0.962	0.000	0.000	0.103
1993	0.003	0.031	0.101	0.188	0.255	0.412	0.670	0.000	0.000	0.000	0.000	0.066
1994	0.004	0.023	0.083	0.152	0.207	0.151	0.133	1.349	1.349	0.000	0.000	0.032
1995	0.006	0.025	0.074	0.188	0.280	0.356	0.396	0.327	0.000	0.000	0.000	0.039
1996	0.003	0.023	0.056	0.122	0.246	0.306	0.252	0.000	0.609	0.000	0.000	0.072
1997	0.006	0.020	0.066	0.107	0.169	0.189	0.432	0.000	0.000	0.000	0.000	0.047
1998	0.013	0.027	0.062	0.106	0.168	0.248	0.258	0.604	0.714	0.000	0.000	0.079
1999	0.008	0.017	0.044	0.100	0.124	0.171	0.259	0.295	0.533	0.000	0.000	0.060
2000	0.013	0.018	0.059	0.113	0.152	0.223	0.241	0.454	0.000	0.000	0.000	0.055
2001	0.000	0.018	0.040	0.103	0.129	0.169	0.246	0.411	0.431	0.000	0.000	0.059
2002	0.000	0.022	0.046	0.085	0.163	0.223	0.222	0.318	0.432	0.000	0.000	0.074
2003	0.030	0.024	0.078	0.102	0.141	0.161	0.283	0.137	0.326	1.776	1.725	0.034
2004	0.004	0.018	0.051	0.119	0.251	0.316	0.402	0.705	1.049	1.141	1.148	0.038
2005	0.009	0.017	0.049	0.118	0.151	0.191	0.191	0.000	0.000	0.000	1.628	0.026
2006	0.010	0.029	0.066	0.134	0.229	0.265	0.253	1.001	1.183	1.110	1.183	0.063
2007	0.008	0.029	0.081	0.162	0.243	0.299	0.319	0.266	0.000	0.000	0.000	0.031
2008	0.003	0.029	0.059	0.142	0.202	0.243	0.276	0.330	0.000	0.000	0.000	0.074
2009	0.000	0.036	0.068	0.086	0.110	0.133	0.133	0.000	0.000	0.000	0.000	0.072
2010	0.000	0.031	0.048	0.114	0.113	0.122	0.117	0.000	0.000	0.000	0.000	0.045
2011	0.005	0.020	0.032	0.074	0.097	0.224	0.342	0.682	0.609	0.219	1.087	0.039
2012	0.005	0.020	0.032	0.074	0.097	0.224	0.342	0.682	0.609	0.219	1.090	0.039
2013	0.007	0.031	0.054	0.087	0.114	0.142	0.170	0.197	0.185	0.299	0.266	0.058
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	Age											
Year	1	2	3	4	5	6	7	8	9	10	11+	Mean
<u>Shrimp Discards Mean Length (cm) at Age</u>												
1980												
1981												
1982												
1983												
1984												
1985												
1986												
1987												
1988												
1989	11.5	16.5	22.7	28.2	30.4	29.2	30.2	34.6	37.0	0.0	0.0	21.9
1990	0.0	17.9	22.9	27.1	30.9	32.1	32.2	31.7	38.0	0.0	0.0	23.3
1991	9.0	15.7	22.9	28.7	32.4	35.8	42.8	0.0	38.9	0.0	0.0	25.1
1992	10.0	16.8	21.9	28.1	31.7	36.7	33.5	0.0	47.0	0.0	0.0	22.7
1993	8.3	16.3	23.7	28.6	31.0	35.7	42.1	0.0	0.0	0.0	0.0	19.2
1994	9.1	15.0	22.1	26.8	29.3	26.7	26.0	52.0	52.0	0.0	0.0	15.7
1995	10.1	15.4	21.5	28.5	32.0	34.7	35.9	33.9	0.0	0.0	0.0	16.9
1996	8.6	15.1	19.7	24.8	30.7	33.1	31.1	0.0	41.0	0.0	0.0	19.8
1997	10.3	14.5	20.6	24.0	27.5	28.6	37.0	0.0	0.0	0.0	0.0	17.3
1998	12.8	15.9	20.3	23.8	27.5	30.8	31.4	40.8	43.0	0.0	0.0	20.8
1999	10.0	13.6	18.4	23.4	24.8	27.6	31.5	32.9	39.4	0.0	0.0	18.4
2000	13.0	13.9	20.2	24.4	26.5	29.5	30.6	37.3	0.0	18.2	0.0	18.2
2001	0.0	13.8	17.8	23.8	25.3	27.4	30.9	36.2	36.8	19.1	0.0	19.1
2002	9.5	15.1	18.6	22.3	27.3	30.0	29.6	33.6	36.5	0.0	0.0	20.7
2003	16.3	15.4	22.0	23.8	26.2	27.0	32.5	26.2	34.0	56.4	55.8	15.9
2004	8.8	14.1	19.2	24.9	31.0	33.2	34.9	41.8	48.0	49.4	49.5	16.1
2005	11.2	13.9	19.1	24.8	26.7	29.0	29.0	0.0	0.0	0.0	55.0	14.5
2006	11.9	16.2	20.9	25.6	30.4	31.8	31.5	46.3	50.0	48.6	50.0	17.7
2007	10.6	16.2	22.1	27.1	30.7	33.0	33.5	32.0	0.0	0.0	0.0	15.0
2008	8.0	16.3	19.9	26.0	29.2	31.0	32.3	34.1	0.0	0.0	0.0	19.7
2009	0.0	17.5	20.9	22.6	24.5	26.0	26.0	0.0	0.0	0.0	0.0	21.1
2010	0.0	16.4	18.8	24.5	24.5	25.0	25.0	0.0	0.0	0.0	0.0	18.1
2011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	9.5	14.4	16.4	21.2	23.3	28.4	31.3	39.3	37.9	29.6	48.1	16.3
2013	11.0	16.4	19.3	22.3	24.2	26.0	27.5	29.0	27.8	32.9	32.0	19.3
2014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 7c. Large mesh fishery discards (including small mesh otter trawl, gillnet, and scallop) (thousands of fish; metric tons) mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Age													Age												
Year	1	2	3	4	5	6	7	8	9	10	11+	Total	Year	1	2	3	4	5	6	7	8	9	10	11+	Total
Large Mesh Discards in Numbers (000's) at Age													Large Mesh Discards in Weight (Tons) at Age												
1980	5.2	98.9	935.7	1786.7	781.2	30.2	2.9	0.0	0.0	0.0	0.0	3641	1980	0.2	7.5	147.2	423.8	218.3	9.4	1.1	0.0	0.0	0.0	0.0	808
1981	4.2	246.7	495.9	436.9	157.6	29.8	19.9	5.4	0.0	0.0	0.0	1396	1981	0.2	21.9	61.7	70.0	26.7	5.6	3.4	1.1	0.0	0.0	0.0	191
1982	2.7	335.4	668.9	446.8	101.8	21.7	0.0	0.0	0.0	0.0	0.0	1577	1982	0.1	42.1	98.8	69.3	18.6	3.8	0.0	0.0	0.0	0.0	0.0	233
1983	0.6	47.8	399.5	681.4	327.8	52.6	12.2	1.4	3.4	0.0	0.0	1527	1983	0.0	4.0	65.8	134.5	69.7	12.0	2.8	0.4	0.8	0.0	0.0	290
1984	0.0	65.0	249.1	549.4	718.1	281.5	16.3	0.3	0.0	0.0	0.0	1880	1984	0.0	6.7	40.2	112.4	172.8	71.3	5.2	0.1	0.0	0.0	0.0	409
1985	10.9	54.6	227.0	85.8	30.8	5.6	0.0	0.0	0.0	0.0	0.0	415	1985	0.3	4.8	25.4	11.3	4.8	0.9	0.0	0.0	0.0	0.0	0.0	48
1986	5.6	85.9	139.6	268.3	65.7	4.4	0.1	0.0	0.0	0.0	0.0	570	1986	0.2	6.2	17.9	44.7	12.4	0.7	0.0	0.0	0.0	0.0	0.0	82
1987	7.1	135.9	390.4	343.7	241.1	53.2	3.8	1.9	0.0	0.0	0.0	1177	1987	0.1	11.4	60.2	69.5	59.2	15.2	1.1	0.2	0.0	0.0	0.0	217
1988	30.4	197.1	606.9	276.6	50.3	5.7	0.2	0.0	0.0	0.0	0.0	1167	1988	0.6	13.5	100.1	53.5	11.3	1.5	0.1	0.0	0.0	0.0	0.0	181
1989	0.7	769.9	1260.2	1497.6	678.5	260.9	86.5	76.2	3.2	0.8	2.7	4637	1989	0.0	33.3	132.4	335.2	182.3	70.5	32.4	29.6	2.6	1.1	3.3	823
1990	0.0	175.6	1774.8	2187.3	898.8	205.9	80.2	55.9	0.1	0.0	0.0	5379	1990	0.0	4.9	256.9	502.4	244.0	58.8	25.1	16.8	0.1	0.0	0.0	1109
1991	0.0	31.0	421.0	3649.1	1997.0	156.7	7.4	1.4	0.8	0.0	0.0	6264	1991	0.0	1.2	54.2	894.2	624.5	65.2	5.4	1.0	0.5	0.0	0.0	1646
1992	0.0	3.4	224.8	899.4	1185.8	115.7	45.8	0.0	0.0	0.0	0.0	2475	1992	0.0	0.1	33.1	221.1	371.0	42.0	13.4	0.0	0.0	0.0	0.0	681
1993	0.0	3.6	311.1	1145.3	537.9	199.5	4.6	0.0	0.0	0.0	0.0	2202	1993	0.0	0.3	58.6	297.0	172.0	68.8	1.9	0.0	0.0	0.0	0.0	599
1994	0.0	2.4	114.3	858.5	1061.8	83.1	1.8	0.0	0.0	0.0	0.0	2122	1994	0.0	0.1	21.9	251.5	347.6	25.8	0.2	0.0	0.0	0.0	0.0	647
1995	4.0	484.4	1178.2	1982.4	597.5	176.2	18.1	15.5	0.3	0.0	0.0	4457	1995	0.0	18.9	144.9	509.1	185.9	66.4	8.1	6.9	0.4	0.0	0.0	941
1996	0.0	408.6	830.5	1114.4	368.7	123.2	44.1	4.4	3.5	2.6	6.2	2906	1996	0.0	12.5	53.2	169.4	135.9	56.5	18.7	5.7	5.9	4.8	12.6	475
1997	0.0	11.0	258.3	1216.2	1306.8	232.2	26.4	0.3	0.0	0.0	0.0	3051	1997	0.0	0.7	50.2	333.7	371.1	71.1	9.9	0.2	0.0	0.0	0.0	837
1998	0.0	26.0	189.8	596.7	1170.5	576.9	66.8	0.7	0.0	0.0	0.0	2628	1998	0.0	1.0	22.9	132.4	296.7	163.5	18.5	0.6	0.0	0.0	0.0	635
1999	0.0	16.4	103.1	889.4	671.1	721.8	226.6	46.4	2.4	0.4	0.0	2678	1999	0.0	0.7	11.9	193.1	183.6	231.1	78.8	17.1	2.1	0.4	0.0	719
2000	0.0	16.6	204.6	481.0	275.0	142.6	53.5	2.1	0.0	0.0	0.0	1175	2000	0.0	0.9	36.4	117.6	87.2	54.1	22.9	1.7	0.0	0.0	0.0	321
2001	0.0	8.5	193.5	665.8	485.5	269.7	81.1	21.8	7.2	0.1	7.2	1740	2001	0.0	0.3	28.1	168.9	151.6	88.6	27.9	7.2	2.6	0.0	2.4	478
2002	0.4	10.0	92.7	441.2	385.8	151.0	37.3	16.1	10.1	4.4	1.4	1150	2002	0.0	0.4	13.6	96.5	110.2	47.6	12.3	5.5	3.7	1.8	2.5	294
2003	1.7	23.0	37.1	191.0	555.5	216.0	32.9	34.6	12.4	0.3	9.4	1114	2003	0.0	0.8	3.8	38.1	155.7	69.7	11.7	10.4	4.7	0.3	2.6	298
2004	1.5	27.6	180.3	308.1	468.5	366.6	71.3	14.4	4.5	1.5	1.1	1445	2004	0.0	0.7	12.7	50.3	129.3	115.4	26.2	7.3	3.1	1.0	1.1	347
2005	0.5	14.9	73.3	266.0	448.1	212.5	59.3	11.0	0.7	0.4	0.3	1087	2005	0.0	0.4	4.9	53.3	125.0	69.9	19.6	4.4	0.6	0.4	0.4	279
2006	4.2	33.4	111.8	358.6	324.0	156.7	70.8	16.6	2.3	5.3	0.6	1084	2006	0.0	1.4	12.8	78.8	97.3	51.9	24.5	7.9	1.8	2.3	0.6	279
2007	0.8	26.0	166.4	329.4	217.5	93.5	18.7	5.3	0.9	2.9	0.1	861	2007	0.0	1.7	27.6	83.9	71.4	33.9	9.8	3.3	0.7	1.0	0.1	233
2008	0.4	6.8	63.4	318.9	339.2	100.2	42.1	32.5	1.6	2.9	1.2	909	2008	0.0	0.4	10.7	71.9	97.9	31.9	15.6	11.9	1.3	1.6	1.5	245
2009	1.0	16.1	45.5	278.2	404.6	370.2	147.0	78.3	15.3	0.3	0.8	1357	2009	0.0	0.8	6.5	62.0	113.1	111.8	48.3	26.4	6.3	0.1	0.6	376
2010	0.0	12.4	71.6	203.0	384.8	343.1	154.6	31.3	33.4	2.7	0.4	1237	2010	0.0	0.9	11.7	49.8	109.5	106.0	49.4	10.1	11.9	1.2	0.4	351
2011	3.2	7.7	20.8	76.6	140.3	173.5	165.3	108.1	36.3	15.7	3.5	751	2011	0.0	0.3	1.6	13.0	33.0	49.0	47.6	35.1	11.7	5.6	1.2	198
2012	0.0	7.9	50.6	166.0	208.1	200.1	121.1	132.5	72.1	19.3	4.5	982	2012	0.0	0.3	5.7	36.7	49.0	57.3	32.7	40.5	22.5	6.6	1.3	253
2013	0.3	17.9	122.5	165.2	79.2	124.4	46.7	55.1	36.9	15.8	6.1	670	2013	0.0	1.0	13.6	35.5	21.5	31.4	13.0	16.2	10.6	5.4	2.1	150
2014	0.0	5.6	32.9	123.9	91.1	31.2	36.5	10.7	10.8	13.9	9.3	366	2014	0.0	0.3	3.5	25.5	24.5	9.5	10.8	3.7	3.6	4.2	3.1	89
2015	0.1	19.0	95.1	102.6	73.5	31	11.4	12.1	4	3.2	2.7	355	2015	0.0	1.6	16.5	25.3	21.5	9.9	3.5	4.1	1.1	1.3	1.0	86
2016	0.3	6.7	202.5	112.2	58.5	21.5	8.3	5.9	9.1	3.3	7.5	436	2016	0.0	0.5	37.8	28.2	16.7	6.6	2.6	1.8	2.7	1.0	2.1	100
2017	0.0	10.3	37.7	219.0	83.5	25.4	15.9	5.3	2.2	3.6	2.9	406	2017	0.0	0.5	3.7	49.1	23.5	7.9	4.9	1.6	1.0	1.3	72.7	166
2018	0.6	1.9	29.0	56.3	171.1	76.7	27.6	16.2	5.9	6.7	12.2	404	2018	0.0	0.1	3.7	12.1	48.0	22.5	9.0	5.5	1.9	2.3	4.5	110

Table 7c continued. Large mesh fishery discards (including small mesh otter trawl, gillnet, and scallop) (thousands of fish; metric tons) mean weight (kg), and mean length (cm), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Year	Age											
	1	2	3	4	5	6	7	8	9	10	11+	Mean
Large Mesh Discards Mean Weight (kg) at Age												
1980	0.030	0.076	0.157	0.237	0.279	0.311	0.392	0.000	0.000	0.000	0.000	0.222
1981	0.037	0.089	0.124	0.160	0.169	0.189	0.171	0.209	0.000	0.000	0.000	0.136
1982	0.029	0.126	0.148	0.155	0.182	0.173	0.000	0.000	0.000	0.000	0.000	0.147
1983	0.024	0.083	0.165	0.197	0.213	0.228	0.234	0.308	0.229	0.000	0.000	0.190
1984	0.000	0.103	0.162	0.205	0.241	0.253	0.317	0.432	0.000	0.000	0.000	0.217
1985	0.030	0.088	0.112	0.132	0.155	0.168	0.000	0.000	0.000	0.000	0.000	0.115
1986	0.035	0.072	0.128	0.167	0.189	0.171	0.295	0.000	0.000	0.000	0.000	0.144
1987	0.020	0.084	0.154	0.202	0.246	0.286	0.295	0.116	0.000	0.000	0.000	0.184
1988	0.019	0.068	0.165	0.193	0.226	0.262	0.359	0.000	0.000	0.000	0.000	0.155
1989	0.010	0.044	0.105	0.224	0.269	0.270	0.374	0.388	0.800	1.350	1.232	0.177
1990	0.000	0.028	0.145	0.229	0.271	0.286	0.313	0.300	0.472	0.000	0.000	0.206
1991	0.000	0.038	0.129	0.245	0.313	0.416	0.732	0.660	0.675	0.000	0.000	0.263
1992	0.000	0.042	0.147	0.246	0.313	0.363	0.292	0.000	0.000	0.000	0.000	0.275
1993	0.000	0.083	0.188	0.259	0.320	0.345	0.409	0.000	0.000	0.000	0.000	0.272
1994	0.000	0.056	0.192	0.293	0.327	0.311	0.133	0.000	0.000	0.000	0.000	0.305
1995	0.007	0.039	0.123	0.257	0.311	0.376	0.448	0.447	1.258	0.000	0.000	0.211
1996	0.000	0.031	0.064	0.152	0.369	0.459	0.425	1.291	1.697	1.867	2.036	0.164
1997	0.000	0.060	0.194	0.274	0.284	0.306	0.374	0.561	0.000	0.000	0.000	0.274
1998	0.000	0.037	0.121	0.222	0.254	0.284	0.277	0.772	0.000	0.000	0.000	0.242
1999	0.000	0.041	0.116	0.217	0.274	0.320	0.348	0.369	0.855	1.106	0.000	0.268
2000	0.000	0.051	0.177	0.244	0.318	0.379	0.427	0.800	0.714	0.000	0.000	0.273
2001	0.000	0.036	0.145	0.254	0.312	0.329	0.344	0.330	0.370	0.432	0.326	0.274
2002	0.007	0.039	0.147	0.219	0.285	0.315	0.328	0.341	0.370	0.401	1.815	0.256
2003	0.011	0.035	0.102	0.199	0.280	0.323	0.357	0.301	0.379	0.795	0.277	0.267
2004	0.006	0.025	0.070	0.163	0.276	0.315	0.368	0.506	0.678	0.671	0.920	0.240
2005	0.009	0.025	0.066	0.200	0.279	0.329	0.332	0.401	0.823	1.012	1.220	0.256
2006	0.010	0.041	0.114	0.220	0.300	0.332	0.346	0.478	0.797	0.430	0.974	0.258
2007	0.010	0.066	0.166	0.255	0.329	0.363	0.526	0.611	0.738	0.360	1.057	0.271
2008	0.005	0.052	0.169	0.225	0.289	0.319	0.371	0.366	0.792	0.554	1.244	0.269
2009	0.010	0.052	0.144	0.223	0.280	0.302	0.328	0.337	0.415	0.460	0.739	0.277
2010	0.000	0.074	0.164	0.246	0.284	0.309	0.320	0.323	0.355	0.442	1.107	0.284
2011	0.012	0.041	0.077	0.169	0.235	0.283	0.288	0.325	0.322	0.36	0.343	0.264
2012	0.007	0.041	0.113	0.221	0.235	0.286	0.27	0.305	0.312	0.344	0.289	0.257
2013	0.006	0.059	0.111	0.215	0.272	0.252	0.278	0.293	0.286	0.342	0.344	0.224
2014	0.008	0.045	0.107	0.206	0.269	0.304	0.296	0.345	0.338	0.303	0.336	0.243
2015	0.011	0.085	0.173	0.247	0.293	0.319	0.303	0.333	0.274	0.387	0.364	0.242
2016	0.021	0.077	0.187	0.252	0.286	0.307	0.310	0.304	0.301	0.307	0.284	0.230
2017	0.000	0.046	0.099	0.224	0.282	0.313	0.311	0.295	0.438	0.374	0.392	0.233
2018	0.014	0.035	0.129	0.216	0.280	0.293	0.326	0.340	0.319	0.348	0.367	0.271

	Age											
Year	1	2	3	4	5	6	7	8	9	10	11+	Mean
<u>Large Mesh Discards Mean Length (cm) at Age</u>												
1980												
1981												
1982												
1983												
1984												
1985												
1986												
1987												
1988												
1989	12.0	18.3	23.8	30.1	31.9	31.8	34.7	35.5	43.5	51.8	50.0	27.0
1990	0.0	16.0	26.2	30.3	32.0	32.6	33.5	33.0	38.0	0.0	0.0	28.9
1991	0.0	17.7	25.2	31.0	33.5	36.2	43.3	42.0	42.1	0.0	0.0	31.5
1992	0.0	17.9	26.5	31.1	33.5	35.1	32.9	0.0	0.0	0.0	0.0	32.0
1993	0.0	22.4	28.6	31.6	33.7	34.5	36.3	0.0	0.0	0.0	0.0	32.0
1994	0.0	20.0	28.8	32.8	34.0	33.4	26.0	0.0	0.0	0.0	0.0	33.2
1995	11.0	17.6	24.9	31.5	33.3	35.2	37.1	36.5	50.8	0.0	0.0	28.6
1996	0.0	16.5	20.4	26.3	34.1	36.7	35.2	51.0	55.2	57.3	58.8	25.0
1997	0.0	20.2	28.8	32.1	32.4	33.2	35.4	40.0	0.0	0.0	0.0	32.0
1998	0.0	17.6	24.7	30.0	31.3	32.4	31.7	44.0	0.0	0.0	0.0	30.7
1999	0.0	18.2	24.2	29.8	31.9	33.4	34.2	34.5	45.0	49.0	0.0	31.5
2000	0.0	19.4	28.1	30.9	33.3	35.1	35.8	44.1	43.0	0.0	0.0	31.6
2001	0.0	17.3	26.1	31.3	33.4	34.0	34.5	34.0	35.3	37.0	34.0	31.9
2002	11.0	17.3	26.1	29.7	32.4	33.4	33.6	33.8	34.7	35.0	56.7	31.0
2003	10.9	17.2	23.8	28.9	32.3	33.7	34.5	32.7	35.2	44.1	32.2	31.5
2004	10.1	15.3	21.1	27.4	32.2	33.4	34.7	38.0	42.0	41.6	45.7	30.0
2005	11.6	15.7	20.9	29.0	32.2	33.9	33.6	35.7	44.5	46.9	49.3	30.9
2006	12.0	17.9	24.5	29.9	33.0	34.0	34.3	37.3	44.3	36.2	46.8	30.9
2007	11.8	20.6	27.5	31.4	33.9	34.8	38.7	40.1	43.2	34.5	48.3	31.5
2008	10.0	19.2	27.0	30.1	32.6	33.6	35.1	35.0	43.8	39.2	50.1	31.6
2009	11.7	19.0	25.9	29.8	32.2	33.0	33.8	34.3	36.2	37.6	43.3	31.9
2010	0.0	21.3	26.9	31.0	32.4	33.3	33.6	33.7	34.8	37.1	47.5	32.2
2011	12.6	17.6	21.6	27.6	30.4	32.3	32.5	33.8	33.7	34.9	34.4	31.3
2012	11.0	17.8	23.9	29.6	30.4	32.5	31.9	33.2	33.4	34.4	32.5	31.1
2013	10.4	19.7	24.0	29.6	31.7	31.0	32.1	32.8	32.5	34.4	34.3	29.6
2014	11.3	18.2	23.9	29.3	31.7	32.9	32.5	34.0	34.0	33.0	33.9	30.4
2015	12.4	22.1	27.7	30.9	32.6	33.5	32.9	33.9	31.5	35.5	43.0	30.4
2016	15.0	21.7	28.4	31.1	32.3	32.9	32.9	33.0	32.9	33.2	36.0	30.1
2017	0.0	18.7	23.3	29.9	32.0	32.9	32.7	32.1	36.7	34.3	35.0	29.9
2018	13.3	17.2	25.4	29.6	32.1	32.6	33.5	33.9	32.9	34.3	34.9	31.6

Table 7d. Total catch (thousands of fish; metric tons) and mean weight (kg), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Age													Age												
Year	1	2	3	4	5	6	7	8	9	10	11+	Total	Year	1	2	3	4	5	6	7	8	9	10	11+	Total
Catch in Numbers (000's) at Age													Catch in Weight (Tons) at Age												
1980	5	99	1072	2672	3939	3933	3632	1185	1139	850	1380	19906	1980	0	8	165	715	1611	2571	3009	1232	1347	1168	2616	14442
1981	5	982	2192	5056	5338	3649	2401	1582	645	440	621	22912	1981	0	106	370	1599	2360	2838	2125	1547	729	552	963	13189
1982	10	603	3349	4575	4504	3599	3298	2038	1256	737	718	24686	1982	0	69	768	1323	1884	2028	3165	2320	1502	1144	1364	15570
1983	15	663	1478	5174	4915	3910	2269	1271	701	449	911	21756	1983	0	22	273	1956	2605	2616	1867	1325	868	650	1530	13712
1984	3	370	991	2422	6031	3244	1936	580	274	307	769	16927	1984	0	17	160	735	3159	2046	1720	689	310	421	1506	10761
1985	65	158	1217	1336	2405	2872	2228	1081	438	267	182	12250	1985	1	9	102	279	796	1534	1887	1263	603	445	387	7306
1986	59	639	738	2284	1700	1476	1307	631	255	105	100	9295	1986	1	27	102	523	652	867	1101	741	380	183	219	4796
1987	38	590	1840	1439	2282	1337	895	543	187	62	60	9274	1987	0	27	241	337	934	815	799	637	278	107	137	4312
1988	314	786	1840	1833	1597	1444	553	270	177	88	55	8957	1988	5	36	293	521	716	927	486	333	247	151	124	3839
1989	15	2346	2713	2676	1589	864	857	552	196	104	118	12030	1989	0	84	280	643	568	386	590	435	260	152	227	3625
1990	0	1074	4923	4023	2156	739	384	416	193	96	161	14165	1990	0	41	607	1018	842	398	269	358	210	125	273	4141
1991	0	240	1011	6134	4966	1275	329	167	203	98	105	14528	1991	0	7	113	1857	2203	863	315	193	258	150	190	6149
1992	10	250	933	1856	6148	2682	862	191	131	118	93	13274	1992	0	8	108	574	3018	1939	789	237	173	193	188	7226
1993	22	278	557	2210	2584	2654	1387	265	287	151	125	10519	1993	0	9	122	767	1229	1661	1308	327	400	238	289	6349
1994	58	884	409	1779	2937	1349	1160	598	235	150	291	9851	1994	0	23	77	639	1339	819	922	647	303	213	705	5688
1995	46	2565	1890	2745	3473	1914	661	594	211	53	50	14201	1995	0	72	237	818	1662	1201	536	655	281	111	96	5669
1996	12	1292	1546	4118	2831	1548	582	244	127	37	70	12408	1996	0	47	142	1240	1383	975	508	294	177	59	155	4980
1997	15	638	388	2597	3946	1781	640	182	85	66	116	10454	1997	0	13	59	882	1611	1053	514	205	114	104	282	4837
1998	37	87	323	849	2716	2477	1067	319	60	57	155	8147	1998	1	3	33	209	959	1265	843	329	80	83	510	4315
1999	4	216	178	1193	1701	2415	1393	490	150	42	79	7862	1999	0	4	16	299	673	1225	953	427	166	62	151	3976
2000	3	309	510	956	1743	2274	1775	569	138	70	20	8365	2000	0	6	94	298	796	1292	1348	572	151	99	37	4693
2001	0	93	468	1142	2437	2285	1609	922	296	57	53	9362	2001	0	2	39	352	1034	1179	1113	767	309	82	80	4958
2002	1	13	111	787	1468	1826	1200	520	285	163	178	6553	2002	0	0.5	15	232	609	924	802	459	297	199	258	3795
2003	12	691	49	329	1327	1294	733	548	274	151	117	5525	2003	0	16.6	5	90	497	676	499	449	260	167	145	2806
2004	6	139	224	441	938	1225	519	372	200	79	76	4218	2004	0	2.7	17	107	352	595	336	291	194	80	91	2066
2005	34	286	110	464	1053	808	459	184	101	44	51	3594	2005	0	5.0	8	134	417	407	295	156	95	47	65	1629
2006	29	88	131	534	823	563	367	195	101	61	44	2936	2006	0	2.9	15	153	337	289	225	160	93	60	57	1391
2007	161	238	226	647	815	505	229	101	59	26	24	3032	2007	1	7.8	40	211	353	267	151	84	59	29	34	1236
2008	15	55	144	539	898	576	349	185	93	89	61	3005	2008	0	1.8	27	159	368	283	205	113	72	65	63	1356
2009	1	52	92	469	1023	1008	580	440	142	46	90	3943	2009	0	2.1	10	126	399	458	299	242	98	39	95	1768
2010	0	496	425	514	741	1132	691	246	140	107	78	4569	2010	0	15.8	42	183	272	518	377	158	90	64	75	1795
2011	5	192	141	196	413	883	869	483	127	70	51	3431	2011	0	4.0	5	57	173	445	457	274	77	45	44	1581
2012	4	436	357	301	540	589	727	762	335	103	97	4250	2012	0	8.7	30	72	197	275	393	421	203	68	79	1746
2013	0	27	159	303	386	585	379	456	364	181	83	2924	2013	0	1.3	23	95	172	278	212	259	219	110	80	1449
2014	0	6	59	369	432	263	626	194	192	153	147	2441	2014	0	0.3	14	131	190	143	353	127	131	118	121	1328
2015	0	19	154	383	463	340	261	346	113	145	140	2364	2015	0	2	40	160	229	190	162	225	88	105	115	1317
2016	0	7	235	295	352	289	185	118	206	69	195	1952	2016	0	1	52	118	178	173	126	84	152	59	167	1109
2017	0	10	42	548	439	329	235	105	111	135	152	2106	2017	0	0	6	200	222	201	156	82	94	114	225	1300
2018	26	89	198	235	636	426	309	190	131	86	201	2528	2018	1	10	32	62	256	206	179	119	95	67	170	1196

Table 7d – continued. Total catch (thousands of fish; metric tons) and mean weight (kg), at age, of American plaice from the Gulf of Maine and Georges Bank stock (NAFO Division 5Y and 5Z).

Year	Age											Mean
	1	2	3	4	5	6	7	8	9	10	11+	
Catch Mean Weight (kg) at Age												
1980	0.030	0.076	0.154	0.267	0.409	0.653	0.829	1.039	1.183	1.374	1.895	0.801
1981	0.032	0.108	0.168	0.316	0.442	0.778	0.885	0.978	1.130	1.254	1.551	0.601
1982	0.018	0.115	0.230	0.290	0.418	0.564	0.960	1.138	1.196	1.552	1.901	0.667
1983	0.013	0.033	0.185	0.378	0.530	0.670	0.823	1.042	1.238	1.446	1.680	0.673
1984	0.004	0.045	0.161	0.303	0.524	0.630	0.888	1.187	1.133	1.369	1.958	0.693
1985	0.018	0.058	0.084	0.209	0.331	0.534	0.847	1.167	1.377	1.665	2.128	0.619
1986	0.016	0.042	0.138	0.229	0.384	0.587	0.842	1.174	1.491	1.747	2.194	0.534
1987	0.013	0.046	0.131	0.234	0.409	0.609	0.892	1.173	1.483	1.732	2.284	0.477
1988	0.016	0.046	0.159	0.284	0.449	0.641	0.880	1.231	1.396	1.717	2.238	0.440
1989	0.009	0.036	0.103	0.240	0.358	0.447	0.689	0.787	1.325	1.462	1.924	0.317
1990	0.000	0.038	0.123	0.253	0.390	0.539	0.699	0.860	1.088	1.305	1.696	0.308
1991	0.004	0.027	0.112	0.302	0.444	0.677	0.958	1.157	1.274	1.541	1.813	0.433
1992	0.006	0.032	0.116	0.309	0.491	0.723	0.915	1.240	1.319	1.640	2.007	0.554
1993	0.003	0.032	0.219	0.347	0.476	0.626	0.943	1.234	1.394	1.577	2.313	0.624
1994	0.004	0.026	0.188	0.359	0.456	0.607	0.794	1.083	1.289	1.424	2.424	0.630
1995	0.006	0.028	0.126	0.298	0.481	0.656	0.901	1.149	1.100	2.105	1.921	0.411
1996	0.003	0.037	0.092	0.301	0.489	0.630	0.872	1.204	1.391	1.586	2.224	0.412
1997	0.006	0.021	0.152	0.339	0.408	0.591	0.804	1.126	1.336	1.570	2.425	0.484
1998	0.013	0.030	0.101	0.247	0.353	0.511	0.791	1.031	1.350	1.463	3.293	0.581
1999	0.008	0.019	0.087	0.250	0.396	0.507	0.685	0.872	1.109	1.458	1.908	0.520
2000	0.013	0.020	0.184	0.311	0.456	0.568	0.760	1.007	1.094	1.411	1.864	0.564
2001	0.000	0.019	0.083	0.308	0.424	0.516	0.692	0.833	1.042	1.454	1.500	0.535
2002	0.002	0.035	0.136	0.295	0.415	0.506	0.668	0.883	1.042	1.223	1.446	0.602
2003	0.027	0.024	0.096	0.274	0.375	0.523	0.682	0.819	0.949	1.106	1.241	0.523
2004	0.005	0.019	0.075	0.244	0.375	0.485	0.647	0.782	0.973	1.009	1.207	0.502
2005	0.009	0.017	0.070	0.289	0.396	0.504	0.642	0.848	0.946	1.073	1.280	0.465
2006	0.010	0.033	0.111	0.286	0.409	0.514	0.612	0.819	0.922	0.976	1.296	0.486
2007	0.008	0.033	0.176	0.326	0.433	0.528	0.661	0.826	0.999	1.104	1.449	0.416
2008	0.003	0.032	0.187	0.295	0.410	0.491	0.585	0.610	0.770	0.724	1.039	0.463
2009	0.010	0.041	0.105	0.269	0.389	0.454	0.515	0.550	0.692	0.858	1.048	0.461
2010	0.000	0.032	0.099	0.356	0.367	0.457	0.546	0.644	0.641	0.605	0.966	0.403
2011	0.009	0.021	0.039	0.292	0.418	0.504	0.526	0.566	0.604	0.646	0.856	0.467
2012	0.005	0.020	0.083	0.238	0.365	0.467	0.541	0.553	0.608	0.656	0.817	0.420
2013	0.006	0.049	0.144	0.315	0.446	0.476	0.558	0.568	0.601	0.605	0.959	0.508
2014	0.008	0.045	0.228	0.356	0.441	0.542	0.563	0.653	0.683	0.767	0.825	0.560
2015	0.011	0.085	0.262	0.418	0.495	0.559	0.621	0.650	0.777	0.720	0.824	0.606
2016	0.021	0.077	0.220	0.399	0.505	0.600	0.680	0.716	0.738	0.854	0.855	0.654
2017	0.000	0.046	0.135	0.365	0.506	0.610	0.665	0.785	0.850	0.839	1.010	0.656
2018	0.021	0.111	0.162	0.262	0.402	0.483	0.578	0.630	0.723	0.784	0.844	0.540

Table 8a. Standardized stratified mean catch per tow in numbers and weight (kg) and coefficient of variation (CV) for American plaice in NEFSC offshore spring and autumn research vessel bottom trawl surveys.

Year	No/Tow	NEFSC Spring			No/Tow	NEFSC Autumn		
		CV	Wt/Tow	CV		CV	Wt/Tow	CV
1963	-	-	-	-	14.2	13.8	5.7	14.8
1964	-	-	-	-	8.2	13.0	2.8	13.2
1965	-	-	-	-	11.9	12.2	3.8	11.9
1966	-	-	-	-	18.3	14.3	4.9	13.3
1967	-	-	-	-	11.0	20.4	2.7	20.5
1968	11.2	18.5	3.3	16.5	8.6	14.9	2.9	15.9
1969	8.3	13.0	2.6	12.0	7.5	14.9	2.2	13.4
1970	5.4	11.3	1.8	11.6	6.5	13.7	2.0	13.3
1971	3.8	12.8	1.3	14.5	7.5	15.3	2.0	18.9
1972	4.3	9.9	1.3	11.6	7.4	13.9	1.6	12.6
1973	7.2	11.1	1.9	11.0	6.2	9.7	1.9	14.5
1974	8.3	24.5	1.9	16.9	6.9	23.1	1.4	21.1
1975	5.8	14.6	1.7	12.4	8.1	10.9	2.4	10.2
1976	11.9	12.1	3.4	9.7	10.0	17.3	3.0	13.1
1977	14.6	11.2	5.1	18.6	11.8	9.3	3.5	9.4
1978	10.6	9.9	3.8	9.9	15.1	8.6	4.7	10.4
1979	9.2	8.1	3.5	10.2	10.0	8.3	4.0	9.8
1980	18.3	14.5	4.8	9.2	14.2	9.5	5.1	11.7
1981	18.7	10.0	5.9	10.5	13.0	10.8	5.6	13.2
1982	11.6	15.0	3.8	12.9	5.9	14.1	2.5	16.4
1983	16.9	24.3	4.6	13.6	9.3	12.3	3.4	14.2
1984	4.1	15.6	1.4	10.8	7.1	18.3	2.0	13.6
1985	4.9	9.9	1.9	10.2	6.9	13.1	2.0	12.7
1986	3.1	18.4	0.9	14.3	5.6	21.8	1.6	15.7
1987	3.5	13.9	0.8	13.0	4.4	12.0	1.1	12.3
1988	3.6	18.1	0.8	13.6	9.7	30.0	1.5	18.1
1989	4.8	16.1	0.7	14.2	9.2	19.8	1.2	16.7
1990	5.1	19.4	0.8	11.9	15.5	15.2	2.9	13.3
1991	5.9	16.4	1.0	13.5	7.7	11.7	1.6	9.7
1992	4.1	11.6	1.4	11.7	6.3	17.6	1.8	16.2
1993	5.3	13.3	1.4	11.7	11.9	15.7	2.4	14.6
1994	4.9	14.9	0.9	11.8	18.1	20.3	2.7	16.1
1995	9.4	17.6	1.9	11.2	11.8	13.9	2.6	14.5
1996	7.8	14.5	1.7	10.6	7.6	14.1	2.2	19.4
1997	7.6	33.7	1.6	20.6	6.3	13.2	1.9	16.0
1998	4.5	12.5	1.1	10.1	9.3	15.3	2.2	13.7
1999	4.2	14.4	1.2	14.2	11.0	18.0	2.6	18.7
2000	10.0	17.5	2.3	14.7	12.2	22.5	2.8	21.9
2001	10.6	15.8	2.2	12.3	10.4	20.5	2.6	20.0
2002	6.7	9.8	1.8	10.2	9.7	18.4	2.2	21.3
2003	4.2	12.0	0.9	10.4	9.3	20.7	2.3	32.1
2004	8.2	25.9	1.4	20.3	5.4	10.8	1.0	17.2
2005	5.0	31.1	0.8	32.9	5.8	15.7	1.0	21.1
2006	7.4	17.2	1.0	14.6	12.5	19.7	1.7	15.3
2007	10.0	13.2	1.3	12.6	11.0	20.2	1.4	19.1
2008	8.1	13.1	1.5	12.1	14.4	14.6	2.1	14.2
2009	6.6	13.9	1.0	8.6	8.0	15.7	1.4	18.1
2010	7.1	15.0	1.2	13.0	7.2	12.9	1.5	17.0
2011	5.6	11.6	1.0	12.4	10.7	21.7	2.3	21.0
2012	5.5	13.3	1.0	9.2	5.7	15.5	1.5	17.6
2013	3.6	13.3	0.8	11.5	6.0	10.6	1.6	21.6
2014	9.1	23.6	1.7	30.6	12.3	13.5	2.1	19.7
2015	7.0	12.7	1.3	11.8	12.4	11.7	3.6	14.7
2016	9.3	9.2	2.3	8.9	9.4	12.2	4.1	13.7
2017	7.3	10.8	2.1	10.3	6.4	14.5	2.4	17.4
2018	6.1	11.0	1.9	11.9	6.6	11.3	2.6	11.8
2019	3.8	16.5	0.9	12.9				

Table 8b. Standardized stratified mean catch per tow in numbers and weight (kg) and coefficient of variation (CV) for American Massachusetts Division of Marine Fisheries inshore spring and autumn research vessel bottom trawl surveys, 1982 - 2019.

	No/Tow	CV	<u>MADMF Spring</u>		No/Tow	CV	<u>MADMF Autumn</u>	
			Wt/Tow	CV			Wt/Tow	CV
1982	100.7	19.1	10.4	19.5	46.8	27.1	5.6	30.5
1983	51.0	28.3	8.1	26.1	79.3	25.1	4.5	23.2
1984	50.9	17.3	4.7	12.4	23.1	35.7	2.4	36.8
1985	67.9	24.5	5.0	26.7	71.7	22.0	3.9	17.2
1986	115.6	23.5	7.6	20.6	73.9	20.5	5.4	23.3
1987	81.2	29.7	3.9	22.3	71.0	33.4	2.7	36.0
1988	159.6	20.1	5.6	28.8	145.1	23.2	7.8	26.3
1989	142.6	22.6	8.6	26.3	170.7	19.4	10.8	18.3
1990	92.0	19.8	8.5	19.0	72.9	19.7	6.7	15.3
1991	69.8	15.8	7.2	16.3	131.9	21.6	13.7	20.3
1992	69.4	23.7	8.6	25.4	91.7	19.8	8.3	19.8
1993	56.7	22.3	5.0	32.2	117.8	13.9	8.0	15.2
1994	93.5	25.3	6.4	29.4	125.6	14.2	9.7	16.9
1995	83.7	13.3	8.2	12.6	66.9	16.6	6.8	16.9
1996	42.8	20.8	5.6	18.0	66.2	12.4	8.3	16.8
1997	42.3	23.7	5.5	21.8	43.2	14.2	5.6	20.1
1998	31.2	19.1	4.0	24.7	44.4	16.0	3.0	18.9
1999	37.7	34.8	4.6	37.4	64.0	19.3	6.1	21.9
2000	91.5	20.6	9.6	22.4	58.2	18.8	6.7	29.6
2001	43.6	29.0	6.3	24.3	66.4	8.0	7.9	10.5
2002	41.3	27.6	4.8	20.7	66.8	11.5	6.5	17.8
2003	60.7	21.3	6.6	22.5	59.4	23.6	5.4	26.2
2004	65.7	17.0	6.1	15.5	82.0	19.3	5.2	15.5
2005	56.6	19.2	4.8	16.6	95.4	14.7	7.2	16.6
2006	88.9	14.5	6.6	15.0	73.1	23.6	6.3	25.0
2007	84.9	28.9	8.2	30.3	55.4	13.4	6.3	12.9
2008	70.7	12.8	8.5	12.7	55.3	12.9	6.5	9.7
2009	88.8	26.6	9.0	27.6	51.3	15.6	5.1	15.8
2010	45.9	18.0	5.4	11.1	38.8	18.4	4.9	17.9
2011	38.5	35.3	5.0	27.7	60.9	18.3	6.0	22.2
2012	28.3	55.1	4.1	54.2	15.3	22.8	1.8	20.3
2013	26.8	37.5	3.0	43.2	16.6	27.8	2.0	29.9
2014	16.5	33.8	2.1	32.6	18.4	15.6	1.1	16.6
2015	38.4	13.1	4.4	7.9	31.8	8.7	3.3	9.1
2016	27.6	32.0	4.0	32.0	18.0	13.4	2.6	21.1
2017	18.1	17.6	3.1	17.8	15.7	14.8	2.2	14.9
2018	11.2	8.8	1.8	7.8	11.5	20.0	0.6	21.2
2019	9.4	15.0	1.1	42.7				

Table 9a. Standardized stratified mean number per tow by age of American plaice in the NEFSC spring research bottom trawl survey in the Gulf of Maine and Georges Bank area (offshore strata 13-30, 36-40).

Year	Ages															no/tow
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14+	
1980	0	0.45	3.69	4.55	3.05	2.93	1.61	1.14	0.26	0.31	0.23	0.04	0.04	0.03	0.01	18.34
1981	0	0.13	3.43	4.21	3.46	2.61	1.69	1.41	0.77	0.40	0.32	0.07	0.09	0.07	0.09	18.75
1982	0	0.03	1.05	1.79	3.17	2.13	1.33	0.92	0.50	0.35	0.19	0.07	0.02	0.05	0.01	11.61
1983	0	0.20	3.68	3.33	4.48	2.64	1.18	0.58	0.32	0.15	0.15	0.11	0.05	0.02	0.04	16.93
1984	0	0.01	0.35	0.56	0.90	1.29	0.58	0.22	0.10	0.01	0.02	0.01	0.01	0.00	0.04	4.10
1985	0	0.03	0.32	0.98	0.86	0.73	0.86	0.46	0.42	0.12	0.07	0.04	0.02	0.02	0.02	4.95
1986	0	0.01	0.46	0.34	1.01	0.59	0.29	0.21	0.10	0.04	0.04	0	0	0	0	3.09
1987	0	0.09	0.61	0.99	0.69	0.51	0.25	0.17	0.07	0.03	0.03	0.03	0.01	0	0	3.48
1988	0	0.20	0.99	0.84	0.76	0.31	0.23	0.12	0.01	0.09	0.01	0.01	0	0	0	3.57
1989	0	0.05	1.59	1.27	0.86	0.49	0.29	0.16	0.03	0.07	0.01	0.01	0	0	0	4.83
1990	0	0.00	0.57	2.65	1.02	0.54	0.17	0.06	0.04	0.05	0	0	0	0	0	5.10
1991	0	0.03	0.71	1.63	2.33	0.92	0.15	0.07	0.04	0.02	0	0.02	0	0	0.01	5.93
1992	0	0.06	0.34	1.15	0.88	1.07	0.43	0.11	0.04	0.02	0.01	0	0.01	0	0.00	4.12
1993	0	0.33	0.84	1.16	1.58	0.61	0.45	0.17	0.08	0.02	0.01	0.02	0.03	0	0.00	5.30
1994	0	0.03	1.43	1.14	1.12	0.75	0.23	0.10	0.03	0.01	0	0.01	0.01	0.01	0.01	4.88
1995	0	0.03	1.97	3.21	2.30	1.11	0.44	0.22	0.03	0.04	0.03	0.01	0.02	0.01	0.01	9.43
1996	0	0.02	0.47	1.94	3.30	1.31	0.53	0.20	0.05	0.02	0	0	0.00	0	0	7.84
1997	0	0.01	0.85	1.66	2.52	2.05	0.39	0.09	0.01	0	0.01	0	0.02	0	0	7.61
1998	0	0.06	0.19	1.02	1.12	1.22	0.68	0.16	0.06	0.01	0.01	0	0.01	0	0	4.54
1999	0	0.08	0.41	0.52	1.13	0.79	0.64	0.41	0.17	0.02	0.02	0	0.00	0	0	4.19
2000	0	0.03	1.91	2.48	2.22	1.60	0.86	0.60	0.15	0.07	0.02	0	0.01	0	0	9.95
2001	0	0.00	0.71	3.67	3.37	1.45	0.75	0.37	0.17	0.09	0.05	0.02	0	0	0	10.65
2002	0	0.10	0.35	0.98	2.35	1.66	0.51	0.33	0.20	0.14	0.07	0.01	0	0	0	6.70
2003	0	0.04	0.76	0.27	0.70	1.24	0.64	0.22	0.10	0.09	0.04	0.03	0.01	0.02	0	4.17
2004	0	0.36	0.87	2.03	1.79	1.33	1.14	0.34	0.10	0.18	0	0.01	0.02	0	0	8.16
2005	0	0.20	0.78	1.04	1.23	0.91	0.50	0.24	0.12	0	0.02	0	0	0	0	5.02
2006	0	0.76	1.62	1.71	1.70	0.84	0.32	0.30	0.11	0.02	0.02	0.01	0	0.01	0	7.42
2007	0	0.25	3.74	2.78	1.61	1.02	0.33	0.14	0.07	0.01	0.02	0.01	0	0	0	9.97
2008	0	0.11	0.58	2.04	2.85	1.41	0.65	0.22	0.09	0.06	0.04	0.02	0.00	0.00	0.01	8.06
2009	0	0.35	1.81	0.52	1.65	1.37	0.69	0.34	0.12	0.03	0.01	0.02	0.00	0.00	0.00	6.90
2010	0	0.13	1.49	1.75	0.93	1.34	0.90	0.34	0.13	0.09	0.03	0.00	0.01	0.00	0.00	7.14
2011	0	0.28	0.63	1.12	0.80	0.88	0.63	0.59	0.35	0.19	0.09	0.02	0.00	0.00	0.00	5.59
2012	0	0.32	0.66	1.02	0.85	0.91	0.51	0.51	0.41	0.18	0.04	0.04	0.01	0.01	0.01	5.48
2013	0	0.20	0.40	0.89	0.53	0.31	0.62	0.18	0.24	0.15	0.08	0.03	0.02	0.00	0.00	3.63
2014	0	0.59	1.57	1.67	2.07	1.13	0.49	0.73	0.30	0.28	0.25	0.11	0.09	0.00	0.00	9.29
2015	0	0.04	2.16	2.06	1.17	0.65	0.28	0.16	0.25	0.07	0.06	0.04	0.02	0.01	0.00	6.99
2016	0	0.39	0.56	4.31	1.93	0.91	0.39	0.15	0.23	0.23	0.11	0.05	0.04	0.03	0.02	9.33
2017	0	0.06	0.43	0.62	3.55	1.28	0.57	0.35	0.10	0.07	0.12	0.05	0.01	0.02	0.02	7.26
2018	0	0.42	0.17	0.69	0.66	1.93	0.88	0.44	0.30	0.19	0.11	0.15	0.07	0.04	0.07	6.13
2019	0	0.15	0.93	0.28	0.61	0.34	0.76	0.32	0.17	0.07	0.05	0.07	0.04	0.01	0.03	3.83

Table 9b. Standardized stratified mean number per tow by age of American plaice in the NEFSC autumn research bottom trawl survey in the Gulf of Maine and Georges Bank area (offshore strata 13-30, 36-40).

	Ages															
Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	no/tow
1980	0.00	1.58	2.23	2.72	2.84	1.53	1.02	0.93	0.57	0.30	0.19	0.11	0.04	0.09	0.09	14.24
1981	0.00	0.44	2.64	2.16	2.48	2.16	1.44	0.59	0.53	0.06	0.16	0.15	0.02	0.02	0.16	13.04
1982	0.00	0.20	0.91	1.65	1.27	0.57	0.48	0.30	0.17	0.19	0.08	0.03	0.00	0.00	0.02	5.87
1983	0.06	0.50	1.01	2.02	2.92	1.36	0.68	0.34	0.17	0.10	0.03	0.05	0.06	0.01	0.03	9.34
1984	0.02	0.22	2.24	1.56	1.21	1.07	0.51	0.12	0.10	0.00	0.03	0.01	0.02	0.00	0.01	7.12
1985	0.02	0.91	0.83	2.64	1.05	0.79	0.41	0.19	0.05	0.03	0.02	0.00	0.00	0.01	0.00	6.95
1986	0.10	0.51	1.46	0.87	1.43	0.47	0.42	0.16	0.11	0.04	0.01	0.02	0.01	0.00	0.00	5.61
1987	0.01	0.53	1.27	0.99	0.43	0.69	0.25	0.10	0.04	0.04	0.01	0.02	0.00	0.00	0.00	4.38
1988	0.00	2.84	2.97	2.39	0.78	0.47	0.10	0.07	0.00	0.03	0.00	0.02	0.00	0.00	0.00	9.67
1989	0.05	0.48	4.45	2.86	0.98	0.19	0.10	0.02	0.02	0.02	0.02	0.00	0.01	0.02	0.00	9.22
1990	0.01	1.71	2.26	7.49	2.89	0.59	0.25	0.12	0.07	0.02	0.02	0.01	0.01	0.01	0.00	15.46
1991	0.01	0.47	2.47	2.02	1.59	0.73	0.29	0.04	0.06	0.00	0.01	0.00	0.00	0.00	0.01	7.70
1992	0.02	0.65	1.23	1.85	1.28	0.78	0.30	0.07	0.05	0.03	0.02	0.00	0.02	0.00	0.00	6.30
1993	0.01	1.70	2.34	3.47	2.28	1.05	0.80	0.11	0.04	0.04	0.04	0.00	0.00	0.00	0.00	11.88
1994	0.04	3.83	7.53	2.81	1.71	1.30	0.40	0.25	0.13	0.01	0.03	0.02	0.00	0.00	0.00	18.06
1995	0.01	0.50	3.80	3.82	2.50	0.90	0.22	0.04	0.03	0.00	0.00	0.00	0.02	0.00	0.00	11.84
1996	0.01	0.54	0.81	2.00	2.74	0.93	0.39	0.07	0.04	0.03	0.00	0.00	0.02	0.00	0.02	7.60
1997	0.01	0.36	1.06	1.55	1.86	1.04	0.32	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.02	6.28
1998	0.01	1.73	0.60	1.88	2.01	1.78	1.08	0.12	0.05	0.01	0.01	0.00	0.01	0.00	0.00	9.29
1999	0.02	2.00	2.20	2.05	2.13	1.60	0.81	0.20	0.03	0.00	0.00	0.00	0.00	0.00	0.00	11.04
2000	0.03	0.47	2.90	3.91	2.28	1.35	0.75	0.33	0.14	0.03	0.03	0.00	0.00	0.00	0.00	12.22
2001	0.02	0.40	1.22	3.31	2.64	1.46	0.53	0.41	0.20	0.17	0.02	0.00	0.01	0.00	0.00	10.39
2002	0.05	1.00	0.77	1.30	3.36	1.73	0.53	0.39	0.29	0.17	0.06	0.02	0.02	0.00	0.00	9.69
2003	0.03	0.70	2.26	1.26	1.76	1.74	0.88	0.35	0.13	0.06	0.08	0.01	0.00	0.03	0.00	9.29
2004	0.01	0.70	0.96	1.19	0.98	0.73	0.50	0.19	0.09	0.03	0.00	0.02	0.00	0.00	0.00	5.42
2005	0.00	0.69	1.65	0.72	1.17	0.75	0.43	0.15	0.10	0.08	0.04	0.00	0.01	0.00	0.00	5.77
2006	0.03	2.04	2.54	2.61	2.57	1.41	0.57	0.44	0.16	0.03	0.04	0.00	0.00	0.01	0.00	12.46
2007	0.02	1.08	3.45	2.83	2.19	0.85	0.42	0.15	0.02	0.02	0.00	0.00	0.00	0.00	0.00	11.02
2008	0.03	2.02	1.74	4.78	2.92	1.46	0.88	0.43	0.05	0.07	0.02	0.04	0.00	0.00	0.00	14.44
2009	0.03	1.64	2.16	1.21	1.42	1.15	0.38	0.10	0.04	0.03	0.03	0.00	0.00	0.00	0.00	8.18
2010	0.07	1.04	1.65	1.12	0.87	1.22	0.72	0.35	0.09	0.05	0.05	0.00	0.03	0.00	0.00	7.25
2011	0.01	2.56	1.36	1.38	1.95	0.83	1.09	0.86	0.42	0.15	0.02	0.01	0.08	0.00	0.00	10.74
2012	0.03	0.84	1.19	0.91	0.87	0.65	0.39	0.40	0.24	0.12	0.03	0.01	0.02	0.00	0.00	5.71
2013	0.32	1.14	1.44	1.08	0.59	0.34	0.58	0.18	0.11	0.19	0.03	0.00	0.00	0.00	0.00	6.00
2014	0.01	5.46	2.48	2.00	0.95	0.30	0.22	0.50	0.10	0.15	0.09	0.04	0.02	0.00	0.01	12.31
2015	0.06	0.72	5.38	2.34	1.58	1.07	0.36	0.19	0.29	0.09	0.08	0.11	0.05	0.04	0.00	12.35
2016	0.00	0.68	0.51	4.38	1.75	0.84	0.57	0.16	0.11	0.20	0.10	0.04	0.04	0.03	0.03	9.44
2017	0.03	0.16	1.37	0.67	2.52	0.81	0.28	0.14	0.11	0.03	0.10	0.03	0.03	0.03	0.04	6.36
2018	0.01	0.94	0.17	1.47	0.37	2.29	0.63	0.29	0.22	0.05	0.05	0.04	0.05	0.01	0.00	6.61

Table 10a. Stratified mean number per tow by age of American plaice in Massachusetts DMF spring bottom trawl surveys in Massachusetts Bay and Cape Cod Bay (Regions 4+5).

Year	0	1	2	3	4	5	Age 6	7	8	9	10	11	12	13	14	sum no/tow
Spring																
1982	0.00	7.80	49.56	19.87	15.53	3.56	2.93	0.97	0.26	0.17	0.04	0.05	0.00	0.01	0.00	100.7
1983	0.00	2.18	8.95	14.67	14.75	7.24	1.95	0.64	0.23	0.23	0.06	0.13	0.01	0.00	0.00	51.0
1984	0.00	2.37	15.46	18.09	9.54	3.68	1.28	0.20	0.08	0.02	0.04	0.00	0.00	0.00	0.10	50.9
1985	0.00	28.26	7.75	19.18	6.50	3.01	1.97	0.59	0.48	0.09	0.01	0.03	0.01	0.00	0.00	67.9
1986	0.00	18.75	65.62	17.83	9.61	2.54	0.69	0.12	0.16	0.13	0.00	0.00	0.00	0.18	0.00	115.6
1987	0.00	41.65	15.81	15.97	4.67	2.19	0.80	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	81.2
1988	0.00	77.47	58.21	15.19	6.96	1.19	0.47	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.6
1989	0.00	12.43	84.97	33.02	8.22	2.49	1.13	0.21	0.08	0.05	0.00	0.02	0.00	0.00	0.00	142.6
1990	0.00	10.68	20.98	43.35	13.36	2.82	0.42	0.05	0.13	0.16	0.00	0.00	0.00	0.00	0.00	92.0
1991	0.00	3.06	18.06	29.81	15.78	2.91	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.8
1992	0.00	8.33	10.20	31.31	12.28	6.09	0.88	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.4
1993	0.00	13.50	18.09	13.46	7.51	2.63	0.65	0.05	0.02	0.00	0.00	0.00	0.01	0.00	0.00	55.9
1994	0.00	12.71	51.50	18.48	5.97	3.49	0.96	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	93.5
1995	0.00	0.47	30.65	41.24	8.04	2.51	0.54	0.12	0.04	0.05	0.03	0.00	0.00	0.00	0.00	83.7
1996	0.00	2.54	2.90	10.06	21.38	4.55	0.83	0.57	0.01	0.00	0.00	0.00	0.00	0.00	0.00	42.8
1997	0.00	1.33	6.24	10.36	12.80	9.45	1.93	0.15	0.02	0.00	0.00	0.00	0.00	0.00	0.00	42.3
1998	0.00	3.20	3.56	8.35	5.62	6.98	3.16	0.36	0.00	0.01	0.00	0.00	0.00	0.00	0.00	31.2
1999	0.00	1.91	7.94	8.29	10.05	5.06	2.83	1.30	0.29	0.01	0.00	0.00	0.00	0.00	0.00	37.7
2000	0.00	3.23	37.37	23.43	13.04	8.66	3.19	2.39	0.15	0.03	0.00	0.00	0.00	0.00	0.00	91.5
2001	0.00	0.08	4.34	18.96	13.1228	3.78	1.79	0.90	0.35	0.12	0.11	0.03	0.00	0.00	0.00	43.6
2002	0.00	4.78	2.82	9.36	16.27	5.38	1.38	0.69	0.35	0.19	0.07	0.00	0.00	0.00	0.00	41.3
2003	0.00	2.90	24.04	6.88	10.66	11.10	2.98	0.71	1.01	0.20	0.01	0.17	0.00	0.01	0.00	60.7
2004	0.00	10.55	7.44	24.46	12.59	5.77	3.61	0.82	0.17	0.18	0.04	0.02	0.00	0.00	0.00	65.7
2005	0.00	5.76	15.26	19.37	7.90	4.89	2.02	0.97	0.39	0.00	0.00	0.02	0.00	0.00	0.00	56.6
2006	0.00	4.50	39.67	25.88	11.66	4.23	1.78	1.01	0.19	0.00	0.02	0.00	0.00	0.00	0.00	88.9
2007	0.00	1.90	33.10	29.04	12.62	6.18	1.22	0.56	0.13	0.01	0.13	0.02	0.00	0.00	0.00	84.9
2008	0.00	2.62	7.86	25.99	21.85	8.29	2.78	0.91	0.22	0.09	0.01	0.02	0.01	0.00	0.00	70.7
2009	0.00	3.88	26.23	16.12	22.45	13.37	4.03	1.67	0.78	0.11	0.01	0.11	0.00	0.00	0.00	88.8
2010	0.00	0.26	9.86	16.02	5.51	8.34	4.00	1.25	0.40	0.18	0.05	0.00	0.00	0.00	0.00	45.9
2011	0.00	1.13	3.91	8.81	8.95	5.30	3.97	4.11	1.44	0.50	0.30	0.11	0.00	0.00	0.01	38.5
2012	0.00	0.21	1.64	5.21	7.28	6.37	2.91	2.30	1.51	0.51	0.18	0.12	0.01	0.02	0.00	28.3
2013	0.00	0.11	2.88	12.56	4.15	2.11	3.04	0.66	0.62	0.49	0.11	0.05	0.03	0.00	0.01	26.8
2014	0.00	0.36	2.23	4.21	4.74	2.10	0.65	1.24	0.29	0.28	0.27	0.11	0.05	0.01	0.00	16.5
2015	0.00	1.23	12.66	14.57	5.41	2.32	0.89	0.39	0.43	0.28	0.11	0.03	0.06	0.00	0.00	38.4
2016	0.00	0.75	5.08	13.65	4.52	1.71	0.75	0.19	0.27	0.29	0.14	0.08	0.10	0.01	0.04	27.6
2017	0.00	0.03	1.34	3.11	9.35	2.54	0.75	0.56	0.16	0.05	0.10	0.04	0.01	0.02	0.01	18.1
2018	0.00	1.08	0.52	1.92	1.74	3.08	1.24	0.48	0.35	0.31	0.11	0.17	0.10	0.04	0.07	11.2
2019	0.00	0.45	3.86	0.97	1.77	0.70	1.07	0.34	0.10	0.03	0.06	0.02	0.02	0.01	0.02	9.4

Table 10b. Stratified mean number per tow by age of American plaice in Massachusetts DMF autumn bottom trawl surveys in Massachusetts Bay and Cape Cod Bay (Regions 4+5).

Year	Age															no/tow
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Autumn																
1982	0.80	11.45	16.08	10.55	5.93	1.11	0.63	0.11	0.06	0.04	0.00	0.02	0.00	0.00	0.01	46.8
1983	1.17	44.05	16.04	8.23	7.61	1.39	0.40	0.20	0.08	0.09	0.00	0.00	0.00	0.00	0.00	79.3
1984	0.53	4.06	10.53	4.22	2.18	1.13	0.31	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	23.1
1985	0.00	49.32	8.07	12.97	1.13	0.11	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.7
1986	0.12	30.47	26.51	10.87	5.43	0.32	0.14	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.9
1987	0.30	47.34	18.55	3.73	0.64	0.30	0.10	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	71.0
1988	0.00	91.90	36.55	14.69	1.31	0.60	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	145.1
1989	0.38	44.08	92.33	31.15	2.53	0.18	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	170.7
1990	0.10	34.39	14.23	19.25	4.64	0.22	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.9
1991	0.53	21.47	65.74	33.37	9.65	0.98	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	131.9
1992	1.00	41.12	12.49	26.18	9.57	1.21	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	91.7
1993	0.09	67.79	28.67	13.69	5.35	1.49	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	117.8
1994	0.00	38.19	72.11	10.37	2.94	1.62	0.25	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.6
1995	0.15	8.38	34.08	19.59	3.82	0.81	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.9
1996	0.18	13.53	15.85	22.19	12.61	1.44	0.31	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	66.2
1997	0.25	6.29	15.44	11.79	7.97	1.31	0.19	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.2
1998	0.15	25.11	3.63	8.05	4.37	2.57	0.50	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.4
1999	0.05	19.52	20.83	13.75	7.15	1.91	0.79	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.0
2000	0.01	6.42	23.77	17.91	5.73	2.86	1.06	0.36	0.03	0.01	0.00	0.00	0.00	0.00	0.00	58.2
2001	0.00	3.70	16.51	33.50	9.19	2.73	0.25	0.32	0.14	0.02	0.00	0.00	0.00	0.00	0.00	66.4
2002	0.22	26.28	7.74	11.68	15.28	3.87	0.81	0.45	0.30	0.11	0.02	0.00	0.05	0.00	0.00	66.8
2003	0.00	13.47	22.46	11.41	6.84	4.02	0.43	0.60	0.08	0.05	0.01	0.00	0.00	0.00	0.00	59.4
2004	0.05	41.59	19.26	9.68	6.78	3.07	1.15	0.20	0.13	0.00	0.00	0.04	0.00	0.00	0.00	82.0
2005	0.00	28.41	37.84	12.42	10.56	4.16	1.49	0.28	0.20	0.00	0.00	0.03	0.00	0.00	0.00	95.4
2006	0.00	10.55	27.78	17.53	10.21	4.20	1.45	1.09	0.14	0.04	0.08	0.00	0.00	0.00	0.00	73.1
2007	0.23	6.11	18.87	15.47	9.85	2.70	1.59	0.43	0.09	0.06	0.00	0.00	0.00	0.00	0.00	55.4
2008	0.13	11.66	6.47	16.96	11.40	4.63	2.73	1.04	0.08	0.14	0.01	0.06	0.00	0.00	0.00	55.3
2009	0.27	8.76	14.94	9.34	9.64	6.70	1.11	0.29	0.17	0.07	0.07	0.00	0.00	0.00	0.00	51.3
2010	0.88	4.08	8.72	7.98	4.74	7.04	3.30	1.42	0.18	0.15	0.20	0.00	0.07	0.00	0.00	38.8
2011	0.03	15.39	9.79	10.07	12.78	2.98	3.94	3.25	1.56	0.66	0.13	0.11	0.20	0.00	0.00	60.9
2012	0.00	1.28	6.15	3.02	2.28	1.32	0.57	0.39	0.20	0.07	0.02	0.00	0.00	0.00	0.00	15.3
2013	0.06	2.44	6.51	4.00	1.22	0.55	1.28	0.32	0.01	0.16	0.03	0.00	0.00	0.00	0.00	16.6
2014	0.00	12.53	3.73	1.21	0.45	0.09	0.08	0.18	0.02	0.06	0.02	0.01	0.00	0.00	0.00	18.4
2015	0.01	5.85	18.29	4.26	1.76	0.95	0.29	0.11	0.18	0.03	0.03	0.03	0.00	0.01	0.00	31.8
2016	0.00	3.11	3.14	7.96	1.85	0.72	0.51	0.14	0.07	0.20	0.11	0.07	0.00	0.05	0.00	17.93
2017	0.00	0.14	6.11	2.49	5.44	0.79	0.30	0.15	0.25	0.00	0.03	0.01	0.00	0.01	0.00	15.71
2018	0.00	9.30	0.78	0.65	0.10	0.46	0.10	0.04	0.05	0.00	0.02	0.00	0.00	0.00	0.00	11.51

Table 11. Estimates of beginning year stock size (thousands of fish), instantaneous fishing mortality (F), spawning stock biomass (mt), and percent mature of Gulf of Maine-Georges Bank American plaice, estimated from virtual population analysis (VPA), calibrated using the commercial catch at age ADAPT formulation.

Stock Numbers (Jan 1) in thousands																				
AGE	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	50267	25957	20930	24792	15676	19315	24454	42975	55237	21969	23058	23548	26301	41068	39338	26036	23589	20461	15300	16130
2	39482	41150	21247	17128	20285	12832	15756	19968	35151	44941	17973	18876	19278	21525	33605	32154	21275	19302	16739	12493
3	32633	32236	32804	16851	13425	16274	10363	12323	15816	28070	34678	13745	15238	15557	17371	26715	24012	16253	15227	13626
4	24061	25750	24415	23839	12464	10098	12226	7819	8432	11291	20535	23958	10342	11634	12234	13853	20167	18264	12956	12176
5	19253	17291	16534	15873	14865	8025	7063	7954	5106	5255	6840	13194	14104	6797	7537	8415	8873	12807	12614	9841
6	13956	12220	9368	9492	8586	6775	4413	4255	4463	2748	2876	3666	6355	6053	3251	3541	3783	4725	6945	7886
7	9947	7895	6731	4447	4274	4124	2979	2289	2284	2359	1475	1691	1859	2805	2583	1455	1196	1712	2274	3467
8	4677	4891	4309	2569	1619	1770	1393	1271	1073	1374	1163	863	1089	752	1060	1079	601	460	829	909
9	3006	2765	2585	1709	969	806	489	576	555	636	631	580	556	720	378	336	354	274	213	393
10	2776	1441	1683	996	772	548	270	174	304	296	344	343	293	337	333	101	88	176	148	121
11+	4509	2035	1639	2019	1933	373	257	169	191	337	577	368	233	279	646	95	164	308	403	226
Total	204569	173631	142246	119714	94867	80939	79662	99773	128612	119274	110150	100832	95647	107526	118336	113781	104102	94742	83649	77268
AGE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	9600	12701	13061	13155	26160	28427	22958	13509	29350	15837	9813	13530	10127	12548	30813	7889	9201	1715	37809	34572
2	13202	7857	10398	10693	10759	21412	23243	18771	10914	24017	12965	8033	11073	8287	10272	25225	6458	7533	3917	30932
3	10033	10531	6349	8501	8131	8684	17273	18951	15153	8886	19617	10167	6404	8672	6760	8405	20635	5281	11821	3127
4	10995	7754	8200	5097	6916	6455	7010	14023	15311	12276	7192	15677	8197	4921	6957	5481	6743	16683	4795	9499
5	8893	8140	5320	6004	3876	5265	4866	5258	10897	12050	9627	5425	12658	6439	3756	5363	4142	5254	23006	3714
6	6527	5713	4478	3037	3722	2330	3363	3243	3571	8112	8943	7214	4069	9876	4924	2686	3973	3074	8393	18261
7	4289	3306	2633	2032	1330	1949	1184	2247	2200	2405	5733	6301	5110	2801	7558	3794	1892	2992	4555	6487
8	1592	1924	1271	1084	1007	624	1183	639	1633	1487	1447	4071	4376	3529	1951	5624	2871	1382	3430	3450
9	308	794	753	576	399	491	346	793	432	1170	822	964	2897	2897	2478	1422	4292	2244	1725	2637
10	188	129	384	361	226	148	312	193	596	270	830	547	674	2070	2044	1856	1063	3328	1369	1294
11+	53	121	422	279	216	171	224	174	406	533	608	403	632	947	1959	1788	2996	3084	3215	3495
Total	65680	58970	53268	50819	62744	75958	81962	77800	90464	87041	77596	72332	66217	62988	79473	69533	64266	52570	104035	117468

Table 11- continued. Estimates of beginning year stock size (thousands of fish), instantaneous fishing mortality (F), spawning stock biomass (mt), and percent mature of Gulf of Maine-Georges Bank American plaice, estimated from virtual population analysis (VPA), calibrated using the commercial catch at age ADAPT formulation.

Fishing Mortality																				
AGE	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.000	0.000	0.001	0.001	0.000	0.004	0.003	0.001	0.006	0.001	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.001	0.003	0.000
2	0.003	0.027	0.032	0.044	0.020	0.014	0.046	0.033	0.025	0.059	0.068	0.014	0.014	0.014	0.029	0.092	0.069	0.037	0.006	0.019
3	0.037	0.078	0.119	0.102	0.085	0.086	0.082	0.179	0.137	0.113	0.170	0.084	0.070	0.040	0.026	0.081	0.074	0.027	0.024	0.015
4	0.130	0.243	0.231	0.272	0.240	0.157	0.230	0.226	0.273	0.301	0.242	0.330	0.220	0.234	0.174	0.246	0.254	0.170	0.075	0.114
5	0.255	0.413	0.355	0.414	0.586	0.398	0.307	0.378	0.420	0.403	0.424	0.530	0.646	0.537	0.555	0.599	0.430	0.412	0.270	0.211
6	0.370	0.396	0.545	0.598	0.533	0.622	0.456	0.422	0.438	0.422	0.331	0.479	0.618	0.651	0.604	0.886	0.593	0.531	0.495	0.409
7	0.510	0.405	0.763	0.811	0.682	0.885	0.652	0.558	0.309	0.507	0.336	0.240	0.705	0.774	0.673	0.684	0.756	0.525	0.717	0.578
8	0.326	0.437	0.725	0.775	0.498	1.085	0.682	0.628	0.324	0.579	0.496	0.239	0.214	0.487	0.949	0.914	0.586	0.568	0.546	0.882
9	0.535	0.296	0.754	0.594	0.371	0.895	0.837	0.439	0.430	0.413	0.409	0.483	0.300	0.571	1.120	1.139	0.500	0.416	0.366	0.540
10	0.409	0.407	0.650	0.678	0.571	0.758	0.553	0.492	0.382	0.484	0.365	0.374	0.577	0.671	0.677	0.838	0.625	0.532	0.545	0.484
11+	0.409	0.407	0.650	0.678	0.571	0.758	0.553	0.492	0.382	0.484	0.365	0.374	0.577	0.671	0.677	0.838	0.625	0.532	0.545	0.484
F6-9	0.435	0.384	0.697	0.694	0.521	0.872	0.657	0.512	0.375	0.480	0.393	0.360	0.459	0.621	0.837	0.906	0.609	0.510	0.531	0.602
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Age																				
1	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.013	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0001	0.0008	
2	0.026	0.013	0.001	0.074	0.014	0.015	0.004	0.014	0.006	0.002	0.043	0.027	0.044	0.004	0.001	0.001	0.001	0.0008	0.0255	
3	0.058	0.050	0.020	0.006	0.031	0.014	0.008	0.013	0.011	0.011	0.024	0.015	0.063	0.020	0.010	0.020	0.013	0.0080	0.0187	
4	0.101	0.177	0.112	0.074	0.073	0.083	0.088	0.052	0.040	0.043	0.082	0.014	0.041	0.070	0.060	0.080	0.049	0.0213	0.0555	
5	0.243	0.398	0.360	0.278	0.309	0.248	0.206	0.187	0.095	0.098	0.089	0.088	0.048	0.068	0.135	0.100	0.098	0.0461	0.0310	
6	0.480	0.575	0.590	0.626	0.447	0.477	0.203	0.188	0.195	0.147	0.150	0.145	0.173	0.067	0.061	0.150	0.083	0.0631	0.0576	
7	0.602	0.756	0.688	0.502	0.557	0.299	0.416	0.119	0.192	0.308	0.142	0.165	0.170	0.161	0.096	0.079	0.114	0.0600	0.0777	
8	0.496	0.738	0.592	0.800	0.518	0.390	0.201	0.191	0.133	0.393	0.207	0.140	0.212	0.154	0.116	0.070	0.046	0.0535	0.0629	
9	0.673	0.525	0.535	0.733	0.788	0.256	0.384	0.085	0.270	0.143	0.207	0.157	0.136	0.149	0.089	0.091	0.054	0.0703	0.0873	
10	0.523	0.654	0.620	0.610	0.482	0.392	0.243	0.163	0.180	0.205	0.152	0.151	0.185	0.102	0.086	0.090	0.075	0.0603	0.0714	
11+	0.523	0.654	0.620	0.610	0.482	0.392	0.243	0.163	0.180	0.205	0.152	0.151	0.185	0.102	0.086	0.090	0.075	0.0603	0.0714	
F6-9	0.563	0.648	0.601	0.665	0.577	0.356	0.301	0.146	0.198	0.248	0.176	0.152	0.173	0.133	0.090	0.098	0.075	0.062	0.071	

Table 11- continued. Estimates of beginning year stock size (thousands of fish), instantaneous fishing mortality (F), spawning stock biomass (mt), and percent mature of Gulf of Maine-Georges Bank American plaice, estimated from virtual population analysis (VPA), calibrated using the commercial catch at age ADAPT formulation.

SSB at start of spawning season

AGE	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0	4	5	2	0	8	4	3	6	1	0	0	0	0	0	0	0	0	0	0
2	38	111	72	20	38	23	28	25	32	40	6	5	4	3	3	3	6	1	4	4
3	497	647	858	410	220	271	208	208	322	393	294	117	112	147	152	171	147	137	92	106
4	2536	2596	2228	2933	1401	966	866	873	1039	1324	1901	2510	1038	1213	1811	1761	2030	1738	1404	1041
5	4584	4181	3977	4160	4348	1774	1499	1982	1347	1355	1702	3461	4090	2017	2309	2689	2690	3582	3649	2524
6	6659	5642	3571	3866	3844	2713	1585	1744	1931	1042	1095	1574	2904	2684	1415	1462	1690	2094	2639	2837
7	6353	5108	4481	2307	2590	2252	1598	1371	1473	1314	721	1088	1166	1816	1464	863	712	1016	1236	1687
8	4086	3754	3398	2014	1331	1294	1114	1027	987	941	752	695	1070	673	804	780	514	376	627	576
9	2874	2646	2203	1663	913	783	498	648	607	697	501	512	606	780	343	262	376	298	228	350
10	3040	1508	1803	1051	829	592	346	235	420	356	393	385	349	391	377	128	95	216	172	143
11+	7340	2711	2520	2722	3121	625	467	324	369	547	850	578	385	518	1257	141	297	622	1101	364
Total	38007	28908	25115	21149	18636	11301	8215	8440	8533	8010	8216	10924	11725	10242	9934	8261	8556	10082	11152	9631
AGE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
1	0	0	0	4	0	1	1	1	0	3	2	2	0	1	2	1	4	1	7	
2	5	2	3	2	5	7	15	19	12	23	20	11	13	12	18	56	23	43	23	
3	94	68	49	79	46	57	137	303	271	122	284	85	57	120	191	241	1099	241	445	
4	1023	1076	737	515	553	522	544	1400	1809	1398	662	1265	356	402	842	947	1536	6379	703	
5	2476	2395	1537	1576	995	1316	1361	1428	3071	3032	2167	1480	2874	1550	1042	1797	1643	4400	8067	
6	2584	2261	1685	1127	1337	838	1344	1314	1417	2984	3146	2589	1474	3539	2108	1173	1977	3049	3853	
7	2178	1633	1238	1001	640	960	564	1197	1098	1044	2541	2737	2335	1280	3560	2032	1079	2632	2524	
8	1110	1210	815	625	615	399	776	412	954	720	746	2058	2108	1774	1077	3181	1800	1523	2079	
9	242	678	584	417	278	377	264	667	307	698	441	550	1562	1531	1437	942	2790	1308	1209	
10	196	131	354	317	187	131	268	178	461	199	492	323	385	1163	1292	1210	808	1879	1044	
11+	83	147	497	283	220	189	259	230	384	504	538	316	469	842	1504	1371	2391	2712	2536	
Total	9992	9602	7499	5947	4876	4798	5534	7149	9783	10726	11038	11415	11635	12214	13073	12952	15148	24167	22490	

Percent mature (females)

AGE	1980	1981
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[illegible]

Table 12. Input data for yield-per-recruit and projection analysis. Selectivity, mean weight, and proportion mature estimated as averages of 2014-2018.

Age	VPA Selectivity	Natural Mortality	Jan 1 Stock Weight	Catch Weight	SSB Weight	Proportion Mature
1	0.00	0.20	0.008	0.012	0.008	0.03
2	0.07	0.20	0.030	0.073	0.030	0.13
3	0.12	0.20	0.108	0.202	0.108	0.41
4	0.44	0.20	0.266	0.360	0.266	0.76
5	0.69	0.20	0.417	0.470	0.417	0.93
6	0.82	0.20	0.517	0.559	0.517	0.98
7	1.00	0.20	0.588	0.621	0.588	1.00
8	1.00	0.20	0.651	0.687	0.651	1.00
9	1.00	0.20	0.712	0.754	0.712	1.00
10	1.00	0.20	0.760	0.793	0.760	1.00
11+	1.00	0.20	0.872	0.872	0.872	1.00

Table 13. Projection results for 2019-2022 where 2019 catch = 1,131 mt
 Projected F in 2018-2010 is the FMSY proxy = F40% = 0.258.
 Starting stock sizes in 2019 adjusted at age for the retrospective bias.

Year	5%	Catch	95%
2017	1,131	1,131	1,131
2018	3,464	4,078	4,768
2019	2,962	3,543	4,440
2020	2,612	3,364	5,865

Year	5%	SSB	95%
2017	16,193	18,954	22,104
2018	15,107	17,768	20,640
2019	13,107	15,873	21,233
2020	11,704	15,414	28,619

Year	5%	F	95%
2017	0.057	0.066	0.078
2018	0.258	0.258	0.258
2019	0.258	0.258	0.258
2020	0.258	0.258	0.258