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Status of the Sea Scallop Resources off the Northeastern United States, 1988

by

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Introduction

The Atlantic sea scallop fishery off the northeastern coast of the United States (NAFO Subarea 5 and Statistical Area 6) is of major importance to both the United States and Canada. Total commercial landings (USA and Canada) in 1987 from the Georges Bank, Mid-Atlantic, and Gulf of Maine scallops stocks were 20,000 mt (meats), 50% higher than in 1986, and the fourth highest annual total in the history of the fishery (Table 1, Figure 1). USA scallop landings in 1987 were 13,200 mt (the third highest ever) and generated a record-high 125 million dollars in ex-vessel revenue. The value of the USA scallop harvest in 1987 accounted for 4% of the total ex-vessel value of all USA commercial finfish and shellfish landings, and was only exceeded by Gulf shrimp ($469 million), sockeye salmon ($360 million), and American lobster ($134 million).

The 1988 USA scallop catch is expected to be near the 1987 level. Projections based on January - September 1988 landings [compared to the same period in 1987] (Table 2) indicate that the total 1988 USA catch will be about 12,700 mt (ie., 4% lower than in 1987 but still the fourth highest ever).

Landings

Georges Bank - Total international (USA and Canada) 1987 landings from Georges Bank (Area 5Ze) were 11,700 mt, 27% higher than in 1986, and the highest annual harvest since 1981 (Table 3). The 1987 USA Georges Bank catch (4,885 mt) was the highest since 1982, while the 1987 Canadian catch (6,800 mt) was the highest since 1981. Despite the increased USA catch from Georges Bank in 1987, Georges Bank landings only accounted for 37% of the USA total, the smallest percentage since 1976 (Table 4). Virtually all of the 1987 USA Georges Bank catch (95%) was taken from the South Channel (2,400 mt) and Northern Edge and Peak (2,200 mt) regions of the Bank (Tables 5 and 6).

Based on January - September 1988 data (Table 2), the 1988 USA Georges Bank catch will be 27% greater than in 1987 and total about 6,200 mt.

Mid-Atlantic - Total 1987 Mid-Atlantic scallop landings (exclusively USA) were 7,900 mt, more than double the 1986 level (3,800 mt), and the second highest annual total ever (Table 4). For the first time since 1979, Mid-Atlantic landings accounted for more than half of the USA total scallop catch. Most (64%) of the 1987 Mid-Atlantic catch was taken from the New York Bight region [off Long Island and New Jersey] where landings doubled between 1986 and 1987 (from 2,500 to 5,000 mt: Table 7). In the Delmarva region [off Delaware, Maryland, and Virginia], scallop catches tripled between 1986 and 1987 (from 800 to 2,800 mt).

Based on January - September 1988 data (Table 2), the 1988 USA Mid-Atlantic scallop catch will be 22% lower than in 1987 and total about 6,150 mt. Landings in 1988 from the New York Bight (about 3,100 mt) will be 38% lower than in 1987, while landings will be 7% higher in Delmarva (about 3,000 mt). Virginia-North Carolina landings will be about 25 mt less in 1988 than in 1987 (73 vs 50 mt).

Gulf of Maine - The total 1987 scallop catch from the Gulf of Maine was 400 mt, 14% greater than in 1986. USA landings (380 mt: Table 4) accounted for 96% of the total, while Canada accounted for the remaining 4%. Most of the 1987 USA catch (83% or 320 mt) was from inshore, territorial waters along the coast of Maine (Table 8). USA landings from the EEZ [> 3 n mi from shore] were only 65 mt, the lowest since 1978, and indicate continued dependence by the fishery on the traditional inshore beds.

Based on January - September 1988 data (Table 2), USA scallop landings in 1988 from the Gulf of Maine will total about 350 mt (ie., 9% less than in 1987).

USA Landings Patterns By Gear, Vessel Class Category and Month

USA fishing patterns in 1987 were similar to those observed in recent years. Landings by vessels using scallop dredges accounted for more than 97% of the total catch (Table 9). In the Georges Bank and Mid-Atlantic fisheries, large vessels (ie., Class 4: 151-500 GRT) accounted for the bulk of the 1987 landings [77% and 57%, respectively] (Tables 10 and 11). As in previous years, the 1987 Gulf of Maine fishery was dominated by small vessels (ie., Class 2: 5-50 GRT) which accounted for 89% of the 1987 Gulf of Maine scallop catch. Seasonal catch patterns were nearly identical to those observed in 1986 (Tables 12 and 13). Most of the Georges Bank and Mid-Atlantic landings were taken during April-September [63% and 70%, respectively], while in the Gulf of Maine most of the 1987 catch occurred during autumn and winter [Oct-Mar: 79%] (Table 13).

Effort and Catch Per Effort

Total nominal USA fishing effort (days fished) in 1987 for sea scallops attained a record-high level [ie., 24,000 days fished by vessels using scallop dredges] (Table 14). Although effort declined 11% between 1986 and 1987 in the Georges Bank fishery, effort in the Mid-Atlantic fishery increased 77% due to large increases in Class 3 (+41%) and Class 4 effort (+120%). Effort by Class 4 vessels in 1987 was an historical high and, by itself, exceeded the total Mid-Atlantic effort exerted in any year prior to 1984. In the Gulf of Maine fishery, effort declined for the fourth consecutive year in 1987 (-29% from 1986 and -71% from the record-high 1983 level) and was the lowest since 1971.

USA commercial CPUE indices in 1987 increased in all fishery regions for virtually all vessel classes (Table 15). On Georges Bank and in the Mid-Atlantic, the 1987 CPUE indices were the highest in the past 5-8 years [since 1982 for Georges Bank; since 1979 in the Mid-Atlantic] (Figure 2). Gulf of Maine CPUE in 1987 was the highest since 1982.

In 1988, scallop effort is believed to have increased in the Georges Bank and Mid-Atlantic fisheries, while CPUE is believed to have slightly declined. A number of newly-constructed dredge vessels entered the scallop fishery in 1988 (>10 vessels); as well, many groundfish vessels converted over to scalloping during the year.

Research Vessel Survey Data

Catch per tow indices from the 1988 USA sea scallop research vessel survey indicate that scallop abundance in the USA sector of Georges Bank and in the Mid-Atlantic region generally remains high (Tables 16-18, Figures 3 and 4). In the Mid-Atlantic region, the 1988 survey indices of both total scallops and harvestable-size scallops (≥70 mm shell height) were the highest in the survey time series (Table 18; Figure 4). The 1988 survey abundance index of pre-recruit scallops (<70 mm shell height) in the Mid-Atlantic region was the second-highest ever indicating strong recruitment from the 1985 year class, particularly in the New York Bight and Delmarva areas (Figure 4).

In the USA sector of Georges Bank, survey indices declined in 1988. Overall abundance of harvestable-size scallops was slightly below the high levels observed during 1985-1987, but pre-recruit abundance indices in 1988 were much lower than in 1986 and 1987 (Tables 16 and 17; Figure 3). The reduced abundance of pre-recruit scallops suggests that the 1985 year class is of only average strength on Georges Bank. Within the USA portion of the Bank, the highest densities of scallops (of all sizes) occurred in the Northern Edge and Peak region (Table 17). As a result, it is expected that during 1989 and 1990 the USA Georges Bank fishery will increasingly focus its activity in this region.

Size Distribution of 1988 Harvestable Sea Scallop Biomass

Percentage distributions (within various meat count intervals) of harvestable sea scallop biomass in the USA Georges Bank and Mid-Atlantic regions [defined as all scallops ≥70 mm shell height (≤80 count)], are presented in Figures 5-7 and summarized in Table 19. These data were derived from the 1988 USA sea scallop survey.

Scallops <30 count comprised 44% of the harvestable biomass in the USA sector of Georges Bank and 42% of the harvestable biomass in the Mid-Atlantic region. About half of the harvestable biomass in each region was comprised of scallops ≤35 count.

Resource Outlook for 1989

Stock abundance of USA offshore scallop resources presently remains high, despite record-high fishing effort. A succession of strong year classes (1982, 1983, and 1984 cohorts) contributed to the recovery of the Georges Bank and Mid-Atlantic stocks from their record-low 1983-84 levels. Catch per tow indices from the 1988 USA sea scallop survey indicate that abundance of the Mid-Atlantic resource will continue to remain high in 1989 due to excellent recruitment from the 1985 year class. On Georges Bank, however, survey indices declined in 1988 suggesting that resource abundance has begun to wane. The 1985 year class was not a strong one on Georges Bank and, hence, the 1989 fishery will largely depend on the same cohorts exploited in 1988.

Although fishing effort is far beyond what the resource can sustain, the present high abundance of scallops should allow catches and CPUE to remain near current levels during 1989 and possibly in 1990.

Table 1. United States and Canadian sea scallop landings (metric tons, meats) from the Northwest Atlantic (NAFO Subarea 5 and Statistical Area 6), 1887 - 1987.

YEAR	USA[1]	YEAR	USA	CANADA[2]	TOTAL
1887	112	1946	5,236		5,236
1888 *	91	1947	6,647		6,647
1889	141	1948	7,546		7,546
1892	53	1949	8,299		8,299
1897	435	1950	9,063		9,063
1898	156	1951	8,503	91	8,594
1899 *	24	1952	8,451	91	8,542
1900 *	79	1953	10,713	136	10,849
1901	286	1954	7,997	91	8,088
1902	61	1955	10,036	136	10,172
1903 *	62	1956	9,102	317	9,419
1904	216	1957	9,523	771	10,294
1905	200	1958	8,608	1,179	9,787
1906 *	255	1959	11,178	2,378	13,556
1907 *	236	1960	12,065	3,470	15,535
1908	834	1961	12,456	4,565	17,021
1909 *	843	1962	11,174	5,715	16,889
1910 *	919	1963	9,038	5,898	14,936
1911 *	663	1964	7,704	5,922	13,626
1912 *	842	1965	9,105	7,052	16,157
1913 *	353	1966	7,237	7,669	14,906
1914 *	386	1967	4,646	5,025	9,671
1916 *	266	1968	5,473	5,243	10,716
1919	89	1969	3,362	4,320	7,682
1921	38	1970	2,613	4,097	6,710
1924	154	1971	2,593	3,908	6,501
1926	506	1972	2,655	4,177	6,832
1928	216	1973	2,401	4,223	6,624
1929	1,130	1974	2,721	6,137	8,858
1930	1,111	1975	4,421	7,414	11,835
1931	1,058	1976	8,721	9,780	18,501
1932	1,517	1977	11,104	13,091	24,195
1933	2,009	1978	14,483	12,189	26,672
1935	1,955	1979	14,256	9,207	23,463
1937	3,989	1980	12,566	5,239	17,805
1938	4,041	1981	11,742	8,018	19,760
1939	4,440	1982	9,044	4,330	13,374
1940	3,467	1983	8,707	2,895	11,602
1941 #	3,622	1984	7,739	2,042	9,781
1942	3,258	1985	6,742	3,851	10,593
1943	2,508	1986	8,661	4,705	13,366
1944	2,209	1987	13,227	6,810	20,037
1945	2,590				

[1] USA landings: 1887-1960 from Lyles (1969); 1961-1975 from Fishery Statistics of the United States; 1963-1982 from ICNAF and NAFO Statistical Bulletins; 1964-1987 from Detailed Weighout Data, Northeast Fisheries Center, Woods Hole, Mass.

[2] Canadian landings: 1951-1958 from ICNAF Statistical Bulletins and Caddy (1975); 1953-1986 from Mohn et al. (1987) for Georges Bank and from ICNAF/NAFO Bulletins for Gulf of Maine and Mid-Atlantic; 1987 from DFO, Statistics Branch, Halifax.

* Maine landings only - from Baird (1956).

USA landings for 1941 from O'Brien (1961).

Table 2. Comparison of January - September 1988 USA sea scallop landings (metric tons, meats), by area, state and port, with January - September USA sea scallop landings in 1983 - 1987.

	January - September						Percentage Difference 1988 vs				
Area/State/Port	1988	1987	1986	1985	1984	1983	1987	1986	1985	1984	1983
Total USA	10264	10702	6631	5530	6150	6971	-4%	55%	86%	67%	47%
Fishing Area											
Georges Bank (5Ze)	4813	3776	3544	2257	2375	3647	27%	36%	113%	103%	32%
Mid-Atlantic (6)	5177	6628	2791	2849	3135	2593	-22%	85%	82%	65%	100%
Gulf of Maine (5Y)	222	244	234	357	488	551	-9%	-5%	-38%	-54%	-60%
So. New England (5Zw)	52	53	62	66	153	180	-2%	-15%	-21%	-66%	-71%
State											
Maine	292	406	260	301	559	572	-28%	12%	-3%	-48%	-49%
Massachusetts	6120	6073	3830	3426	3313	4197	1%	60%	79%	85%	46%
Rhode Island	105	144	78	67	166	229	-28%	34%	56%	-37%	-54%
New Jersey	1183	1311	841	658	912	894	-10%	41%	80%	30%	32%
Virginia	2418	2708	1563	1076	1195	1071	-11%	55%	125%	102%	126%
Other States	148	59	60	2	4	9	152%	146%	8122%	3342%	1601%
Port											
Portland	100	162	56	19	140	135	-39%	78%	430%	-29%	-26%
Rockland	13	23	2	26	34	130	-42%	665%	-50%	-61%	-90%
Other Maine	179	222	202	256	385	307	-19%	-11%	-30%	-54%	-42%
New Bedford	6097	6061	3806	3335	3302	3874	1%	60%	83%	85%	57%
Newport	100	144	77	66	166	200	-30%	30%	52%	-40%	-50%
Cape May	902	1084	684	525	707	660	-17%	32%	72%	28%	37%
Other New Jersey	275	201	133	120	134	78	37%	107%	129%	105%	251%
Hampton Roads	2418	2708	1563	1076	1195	1071	-11%	55%	125%	102%	126%
All Other Ports	181	98	109	106	87	515	85%	66%	70%	107%	-65%

Table 3. Historical trends in USA and Canadian sea scallop landings (mt, meats) from Georges Bank (NAFO Subdivision 5Ze), 1944 - 1987.

YEAR	USA	% OF TOTAL	CANADA	% OF TOTAL	TOTAL
1944	1,814	100	-	0	1,814
1945	1,769	100	-	0	1,769
1946	4,036	100	-	0	4,036
1947	4,853	100	-	0	4,853
1948	4,580	100	-	0	4,580
1949	5,306	100	-	0	5,306
1950	5,442	100	-	0	5,442
1951	5,714	98	91	2	5,805
1952	5,488	98	91	2	5,579
1953	7,392	98	136	2	7,528
1954	7,029	99	91	1	7,120
1955	8,299	98	136	2	8,435
1956	7,937	96	317	4	8,254
1957	7,846	91	771	9	8,617
1958	6,531	85	1,179	15	7,710
1959	8,481	78	2,378	22	10,859
1960	9,932	74	3,470	26	13,402
1961	10,660	70	4,565	30	15,225
1962	9,690	63	5,715	37	15,405
1963	7,910	57	5,898	43	13,808
1964	6,241	51	5,922	49	12,163
1965	1,483	25	4,434	75	5,917
1966	884	15	4,878	85	5,762
1967	1,221	20	5,019	80	6,240
1968	1,025	18	4,820	82	5,845
1969	1,325	23	4,318	77	5,643
1970	1,415	26	4,097	74	5,512
1971	1,329	25	3,908	75	5,237
1972	821	16	4,161	84	4,982
1973	1,080	20	4,223	80	5,303
1974	925	13	6,137	87	7,062
1975	857	10	7,414	90	8,271
1976	1,770	15	9,761	85	11,531
1977	4,805	27	13,089	73	17,894
1978	5,569	31	12,189	69	17,758
1979	6,573	42	9,207	58	15,780
1980	5,620	52	5,221	48	10,841
1981	8,421	51	8,013	49	16,434
1982	6,509	60	4,306	40	10,815
1983	4,328	61	2,748	39	7,076
1984	3,071	61	1,945	39	5,016
1985	2,949	44	3,812	56	6,761
1986	4,511	49	4,670	51	9,181
1987	4,885	42	6,793	58	11,678

Table 4. Geographical distribution of USA sea scallop landings (mt, meats) from the Northwest Atlantic (NAFO Subarea 5 and Statistical Area 6), 1961 - 1987.

	USA Landings (mt, meats)					Percent of USA Landings				
Year	GEORGES BANK	MID-ATLANTIC	GULF OF MAINE	OTHER[1]	TOTAL	GEORGES BANK	MID-ATLANTIC	GULF OF MAINE	OTHER[1]	TOTAL
1961	10,660	1,676	120	0	12,456	85.6	13.5	1.0	0.0	100.0
1962	9,690	1,378	103	3	11,174	86.7	12.3	0.9	0.0	100.0
1963	7,910	1,001	127	0	9,038	87.5	11.1	1.4	0.0	100.0
1964	6,241	1,216	192	55	7,704	81.0	15.8	2.5	0.7	100.0
1965	1,483	7,480	115	27	9,105	16.3	82.2	1.3	0.3	100.0
1966	884	6,252	93	8	7,237	12.2	86.4	1.3	0.1	100.0
1967	1,221	3,337	80	8	4,646	26.3	71.8	1.7	0.2	100.0
1968	1,025	4,311	113	24	5,473	18.7	78.8	2.1	0.4	100.0
1969	1,325	1,896	123	19	3,363	39.4	56.4	3.7	0.6	100.0
1970	1,415	1,060	132	6	2,613	54.2	40.6	5.1	0.2	100.0
1971	1,329	895	362	7	2,593	51.3	34.5	14.0	0.3	100.0
1972	821	1,307	525	2	2,655	30.9	49.2	19.8	0.1	100.0
1973	1,080	857	460	4	2,401	45.0	35.7	19.2	0.2	100.0
1974	925	1,569	223	5	2,722	34.0	57.6	8.2	0.2	100.0
1975	857	2,769	746	50	4,422	19.4	62.6	16.9	1.1	100.0
1976	1,770	6,576	366	9	8,721	20.3	75.4	4.2	0.1	100.0
1977	4,805	5,904	258	136	11,103	43.3	53.2	2.3	1.2	100.0
1978	5,569	8,641	243	29	14,482	38.5	59.7	1.7	0.2	100.0
1979	6,573	7,156	434	93	14,256	46.1	50.2	3.0	0.7	100.0
1980	5,620	5,090	1,637	219	12,566	44.7	40.5	13.0	1.7	100.0
1981	8,421	1,890	1,305	126	11,742	71.7	16.1	11.1	1.1	100.0
1982	6,509	1,702	670	163	9,044	72.0	18.8	7.4	1.8	100.0
1983	4,328	3,227	895	257	8,707	49.7	37.1	10.3	3.0	100.0
1984	3,071	3,825	678	165	7,739	39.7	49.4	8.8	2.1	100.0
1985	2,949	3,291	421	81	6,742	43.7	48.8	6.2	1.2	100.0
1986	4,511	3,756	316	78	8,661	52.1	43.4	3.6	0.9	100.0
1987	4,885	7,892	382	68	13,227	36.9	59.7	2.9	0.5	100.0

[1] Includes landings from Area 5Zw (Southern New England) and Area 5NK (Area 5, specific subarea unknown).

Table 5. Distribution of USA and Canadian sea scallop landings (mt, meats) in the three principal sea scallop fishing regions on Georges Bank, 1957 - 1987.

	USA				CANADA				TOTAL			
Year	South Channel	So. East Part	No. Edge & Peak	Total	South Channel	So. East Part	No. Edge & Peak	Total	South Channel	So. East Part	No. Edge & Peak	Total
1957	1,491	628	5,727	7,846	8	-	763	771	1,499	628	6,490	8,617
1958	1,241	457	4,833	6,531	-	-	1,470	1,470	1,241	457	6,303	8,001
1959	1,951	2,799	3,731	8,481	-	-	2,378	2,378	1,951	2,799	6,109	10,859
1960	1,788	4,469	3,675	9,932	-	-	3,470	3,470	1,788	4,469	7,145	13,402
1961	2,132	1,812	6,716	10,660	-	-	4,565	4,565	2,132	1,812	11,281	15,225
1962	1,744	1,841	6,105	9,690	-	-	5,715	5,715	1,744	1,841	11,820	15,405
1963	2,057	2,215	3,638	7,910	-	472	5,426	5,898	2,057	2,687	9,064	13,808
1964	2,569	1,909	1,763	6,241	-	118	5,804	5,922	2,569	2,027	7,567	12,163
1965	677	390	416	1,483	-	178	4,256	4,434	677	568	4,672	5,917
1966	716	24	144	884	-	-	4,878	4,878	716	24	5,022	5,762
1967	641	311	269	1,221	-	-	5,019	5,019	641	311	5,288	6,240
1968	713	149	163	1,025	-	-	4,820	4,820	713	149	4,983	5,845
1969	576	227	522	1,325	-	-	4,318	4,318	576	227	4,840	5,643
1970	1,069	159	187	1,415	41	-	4,056	4,097	1,110	159	4,243	5,512
1971	1,091	214	24	1,329	547	-	3,361	3,908	1,638	214	3,385	5,237
1972	623	64	134	821	417	-	3,744	4,161	1,040	64	3,878	4,982
1973	890	173	17	1,080	1,140	-	3,083	4,223	2,030	173	3,100	5,303
1974	783	121	21	925	552	307	5,278	6,137	1,335	428	5,299	7,062
1975	566	175	116	857	593	74	6,747	7,414	1,159	249	6,863	8,271
1976	1,583	142	45	1,770	781	-	8,980	9,761	2,364	142	9,025	11,531
1977	4,121	277	407	4,805	262	-	12,827	13,089	4,383	277	13,234	17,894
1978	3,918	366	1,285	5,569	-	-	12,189	12,189	3,918	366	13,474	17,758
1979	3,996	758	1,819	6,573	-	-	9,207	9,207	3,996	758	11,026	15,780
1980	2,994	685	1,941	5,620	-	-	5,221	5,221	2,994	685	7,162	10,841
1981	2,940	515	4,966	8,421	-	-	8,013	8,013	2,940	515	12,979	16,434
1982	3,391	575	2,543	6,509	-	-	4,307	4,307	3,391	575	6,850	10,816
1983	2,439	432	1,457	4,328	-	-	2,748	2,748	2,439	432	4,205	7,076
1984	1,633	691	747	3,071	-	-	1,945	1,945	1,633	691	2,692	5,016
1985	1,554	403	992	2,949	-	-	3,812	3,812	1,554	403	4,804	6,761
1986	2,744	654	1,113	4,511	-	-	4,670	4,670	2,744	654	5,783	9,181
1987	2,404	265	2,216	4,885	-	-	6,793	6,793	2,404	265	9,009	11,678

South Channel: Statistical Areas 521, 522, & 526.
Southeast Part: Statistical Area 525.
Northern Edge & Peak: Statistical Areas 523 & 524.

Table 6. Percentage distribution of USA and Canadian sea scallop landings (mt, meats) in the three principal sea scallop fishing regions on Georges Bank, 1957 - 1987.

	USA				CANADA				TOTAL			
Year	South Channel	So. East Part	No. Edge & Peak	Total	South Channel	So. East Part	No. Edge & Peak	Total	South Channel	So. East Part	No. Edge & Peak	Total
1957	19.0	8.0	73.0	100.0	1.0	0.0	99.0	100.0	17.4	7.3	75.3	100.0
1958	19.0	7.0	74.0	100.0	0.0	0.0	100.0	100.0	15.5	5.7	78.8	100.0
1959	23.0	33.0	44.0	100.0	0.0	0.0	100.0	100.0	18.0	25.8	56.3	100.0
1960	18.0	45.0	37.0	100.0	0.0	0.0	100.0	100.0	13.3	33.3	53.3	100.0
1961	20.0	17.0	63.0	100.0	0.0	0.0	100.0	100.0	14.0	11.9	74.1	100.0
1962	18.0	19.0	63.0	100.0	0.0	0.0	100.0	100.0	11.3	12.0	76.7	100.0
1963	26.0	28.0	46.0	100.0	0.0	8.0	92.0	100.0	14.9	19.5	65.6	100.0
1964	41.2	30.6	28.2	100.0	0.0	2.0	98.0	100.0	21.1	16.7	62.2	100.0
1965	45.7	26.3	28.1	100.0	0.0	4.0	96.0	100.0	11.4	9.6	79.0	100.0
1966	81.0	2.7	16.3	100.0	0.0	0.0	100.0	100.0	12.4	0.4	87.2	100.0
1967	52.5	25.5	22.0	100.0	0.0	0.0	100.0	100.0	10.3	5.0	84.7	100.0
1968	69.6	14.5	15.9	100.0	0.0	0.0	100.0	100.0	12.2	2.5	85.3	100.0
1969	43.5	17.1	39.4	100.0	0.0	0.0	100.0	100.0	10.2	4.0	85.8	100.0
1970	75.5	11.2	13.2	100.0	1.0	0.0	99.0	100.0	20.1	2.9	77.0	100.0
1971	82.1	16.1	1.8	100.0	14.0	0.0	86.0	100.0	31.3	4.1	64.6	100.0
1972	75.9	7.8	16.3	100.0	10.0	0.0	90.0	100.0	20.9	1.3	77.8	100.0
1973	82.4	16.0	1.6	100.0	27.0	0.0	73.0	100.0	38.3	3.3	58.5	100.0
1974	84.6	13.1	2.3	100.0	9.0	5.0	86.0	100.0	18.9	6.1	75.0	100.0
1975	66.0	20.4	13.5	100.0	8.0	1.0	91.0	100.0	14.0	3.0	83.0	100.0
1976	89.4	8.0	2.5	100.0	8.0	0.0	92.0	100.0	20.5	1.2	78.3	100.0
1977	85.8	5.8	8.5	100.0	2.0	0.0	98.0	100.0	24.5	1.5	74.0	100.0
1978	70.4	6.6	23.1	100.0	0.0	0.0	100.0	100.0	22.1	2.1	75.9	100.0
1979	60.8	11.5	27.7	100.0	0.0	0.0	100.0	100.0	25.3	4.8	69.9	100.0
1980	53.3	12.2	34.5	100.0	0.0	0.0	100.0	100.0	27.6	6.3	66.1	100.0
1981	34.9	6.1	59.0	100.0	0.0	0.0	100.0	100.0	17.9	3.1	79.0	100.0
1982	52.1	8.8	39.1	100.0	0.0	0.0	100.0	100.0	31.4	5.3	63.3	100.0
1983	56.4	10.0	33.7	100.0	0.0	0.0	100.0	100.0	34.5	6.1	59.4	100.0
1984	53.2	22.5	24.3	100.0	0.0	0.0	100.0	100.0	32.6	13.8	53.7	100.0
1985	52.7	13.7	33.6	100.0	0.0	0.0	100.0	100.0	23.0	6.0	71.1	100.0
1986	60.8	14.5	24.7	100.0	0.0	0.0	100.0	100.0	29.9	7.1	63.0	100.0
1987	49.2	5.4	45.4	100.0	0.0	0.0	100.0	100.0	20.6	2.3	77.1	100.0

South Channel: Statistical Areas 521, 522, & 526.
Southeast Part: Statistical Area 525.
Northern Edge & Peak: Statistical Areas 523 & 524.

Table 7. USA commercial sea scallop landings (mt, meats) from the Northwest Atlantic (NAFO Subarea 5 and Statistical Area 6), by NAFO Statistical Area, 1961 - 1987.

	Gulf of Maine - Georges Bank Region						Mid-Atlantic Region					
Year	GULF OF MAINE (5Y)	GEORGES BANK (5Ze)	SO. NEW ENGLAND (5Zw)	NAFO AREA 5Z	NAFO AREA 5NK	NAFO AREA 5	NEW YORK BIGHT (6A)	DELMARVA (6B)	VA - NC (6C)	NAFO AREA 6NK	NAFO AREA 6	TOTAL USA
1961	120			10,660		10,780					1,676	12,456
1962	103			9,690		9,793					1,378	11,171
1963	127			7,910	3	8,040					1,001	9,041
1964	192	6,241	55	6,296		6,488					1,216	7,704
1965	115	1,483	27	1,510		1,625	3,098	2,123	2,259		7,480	9,105
1966	93	884	8	892		985	3,164	3,019	62		6,245	7,230
1967	80	1,221	8	1,229		1,309	1,548	1,776	8		3,332	4,641
1968	113	1,025	24	1,049		1,162	1,951	486		1,874	4,311	5,473
1969	123	1,325	19	1,344		1,467	553	307		1,045	1,905	3,372
1970	132	1,415	6	1,421		1,553	431	42		587	1,060	2,613
1971	362	1,329	7	1,336		1,698	274			621	895	2,593
1972	525	821	2	823		1,348	265	388	6	648	1,307	2,655
1973	460	1,080	3	1,083		1,543	143	95	11	609	858	2,401
1974	223	925	5	930		1,153	869	628	71		1,568	2,721
1975	746	857	50	907		1,653	1,641	899	228		2,768	4,421
1976	366	1,770	9	1,779		2,145	4,494	1,725	357		6,576	8,721
1977	258	4,805	11	4,816	125	5,199	3,537	2,233	135		5,905	11,104
1978	243	5,569	29	5,598		5,841	2,603	5,567	472		8,642	14,483
1979	434	6,573	93	6,666		7,100	4,656	2,268	232		7,156	14,256
1980	1,637	5,620	219	5,839		7,476	3,198	1,836	56		5,090	12,566
1981	1,305	8,421	126	8,547		9,852	1,507	293	90		1,890	11,742
1982	670	6,509	163	6,672		7,342	1,313	357	33		1,703	9,045
1983	895	4,328	257	4,585		5,480	2,913	298	16		3,227	8,707
1984	678	3,071	165	3,236		3,914	2,792	945	88		3,825	7,739
1985	421	2,949	81	3,030		3,451	2,753	529	9		3,291	6,742
1986	316	4,511	78	4,589		4,905	2,549	813	394		3,756	8,661
1987	382	4,885	68	4,953		5,335	5,019	2,800	73		7,892	13,227

Table 8. USA commercial sea scallop landings (mt, meats) from Gulf of Maine (NAFO Division 5Y), 1899 - 1987. Inshore landings represent catches taken in state territorial waters [<3 mi from shore]; offshore landings represent catches taken outside state territorial waters [3 mi - 200 mi offshore].

YEAR	INSHORE [<3 MI]	OFFSHORE [>3 MI]	TOTAL[1]	YEAR	INSHORE [<3 MI]	OFFSHORE[2] [>3 MI]	TOTAL[1]
1899	24	-	24	1950	232	6	238
1900	79	-	79	1951	171	136	307
1901	99	-	99	1952	142	536	678
1902	57	-	57	1953	110	660	770
1903	62	-	62	1954	65	256	321
1904	64	-	64	1955	99	406	505
1905	285	-	285	1956	148	292	440
1906	255	-	255	1957	111	227	338
1907	236	-	236	1958	49	130	179
1908	432	-	432	1959	49	465	514
1909	843	-	843	1960	33	817	850
1910	919	-	919	1961	63	57	120
1911	663	-	663	1962	70	33	103
1912	842	-	842	1963	80	47	127
1913	353	-	353	1964	106	86	192
1914	386	-	386	1965	NA	NA	115
1916	266	-	266	1966	NA	NA	93
1919	33	-	33	1967	NA	NA	80
1924	134	-	134	1968	NA	NA	113
1928	148	-	148	1969	NA	NA	123
1929	163	-	163	1970	NA	NA	132
1930	198	-	198	1971	234	128	362
1931	266	-	266	1972	436	89	525
1932	276	-	276	1973	368	92	460
1933	487	-	487	1974	198	25	223
1935	337	-	337	1975	728	18	746
1938	360	-	360	1976	334	32	366
1939	179	-	179	1977	206	52	258
1940	207	-	207	1978	228	15	243
1941	144	-	144	1979	299	135	434
1942	59	-	59	1980	492	1145	1637
1943	103	-	103	1981	591	714	1305
1944	46	-	46	1982	324	346	670
1945	48	-	48	1983	523	372	895
1946	62	-	62	1984	519	159	678
1947	230	-	230	1985	329	92	421
1948	206	-	206	1986	245	71	316
1949	231	-	231	1987	317	65	382

[1] Landings 1899-1955 from Baird (1956); inshore landings 1950-1964 from Dow (1969, 1977); total landings 1956-1960 from Lyles (1969) and represent State of Maine landings [not necessarily landings from the Gulf of Maine]; total landings 1961-1985 from ICNAF/NAFO Statistical Bulletins; inshore/offshore/total landings 1971-1987 from Detailed Weighout Data, Northeast Fisheries Center, Woods Hole.

[2] Offshore landings 1950-1970 include all landings outside state territorial waters and may include offshore Georges Bank landings.

NA Distribution of landings between inshore and offshore areas not available.

Table 9. Percent distribution of USA commercial landings (metric tons, meats) of sea scallops, by gear type within the principal sea scallop fishing areas off the Northeast coast of the United States, 1964-1987. For 1964-1973, data only reflect landings in New England states [Maine, Massachusetts, New Hampshire and Rhode Island]. For 1974-1987, data reflect landings in both New England and Mid-Atlantic states [Maine to North Carolina].

	GULF OF MAINE		GEORGES BANK		SO. NEW ENGLAND		MID-ATLANTIC		ALL AREAS	
Year	Otter Trawl	Scallop Dredge	Otter Trawl	Scallop Dredge	Otter Trawl	Scallop Dredge	Otter Trawl	Scallop Dredge	Otter Trawl	Scallop Dredge
1964	<0.1	99.9	0.8	99.2	-	-	0.0	100.0	0.8	99.2
1965	0.0	100.0	0.3	99.7	-	-	0.0	100.0	0.1	99.9
1966	0.2	99.8	<0.1	99.9	-	-	0.0	100.0	<0.1	99.9
1967	0.4	99.6	0.3	99.7	-	-	0.0	100.0	0.1	99.9
1968	0.4	99.6	0.0	100.0	0.0	100.0	0.0	100.0	<0.1	99.9
1969	0.6	99.4	0.6	99.4	0.0	100.0	0.6	99.4	0.6	99.4
1970	0.2	99.8	0.4	99.6	<0.1	99.9	3.0	97.0	0.9	99.1
1971	1.1	98.9	1.3	98.7	3.0	97.0	<0.1	99.9	1.1	98.9
1972	0.1	99.9	0.6	99.4	0.5	99.5	0.8	99.2	0.6	99.4
1973	<0.1	99.9	1.4	98.6	3.3	96.7	1.4	98.6	1.1	98.9
1974	0.2	99.8	1.6	98.4	2.3	97.7	1.2	98.8	1.3	98.7
1975	0.8	99.2	1.6	98.4	15.9	84.1	20.9	79.1	13.7	86.3
1976	0.8	99.2	2.2	97.8	38.5	61.5	31.8	68.2	24.5	75.5
1977	1.5	98.5	0.6	99.4	7.5	92.5	12.8	87.2	7.1	92.9
1978	0.4	99.6	0.7	99.3	11.8	88.2	6.6	93.4	4.2	95.8
1979	1.1	98.9	0.4	99.6	5.6	94.4	7.2	92.8	3.8	96.2
1980	7.6	92.4	0.6	99.4	1.4	98.6	0.3	99.7	1.4	98.6
1981	5.6	94.4	0.7	99.3	2.2	97.8	0.7	99.3	1.2	98.8
1982	4.3	95.7	1.8	98.2	0.1	99.9	0.4	99.6	1.7	98.3
1983	8.1	91.9	0.7	99.3	0.3	99.7	1.4	98.6	1.7	98.3
1984	2.7	97.3	0.9	99.1	2.1	97.9	1.1	98.9	1.2	98.8
1985	0.7	99.3	1.2	98.8	5.3	94.7	1.7	98.3	1.4	98.6
1986	0.5	99.5	0.2	99.8	2.7	97.3	3.0	97.0	1.4	98.6
1987	0.1	99.9	0.6	99.4	2.0	98.0	4.0	96.0	2.6	97.4
1964-1987	3.2	96.8	0.8	99.2	2.7	97.3	6.6	93.4	3.7	96.3

Table 10. USA commercial sea scallop landings (mt, meats) from Georges Bank (Area 5Ze), the Mid-Atlantic (Statistical Area 6), and the Gulf of Maine (Division 5Y), by vessel tonnage class, 1965 - 1987. Data derived from vessels using scallop dredges and landing in New England and Mid-Atlantic ports.

	GEORGES BANK				MID-ATLANTIC				GULF OF MAINE			
Year	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total
1965	-	1,287	193	1,480	21	3,608	346	3,974	100	15	-	115
1966	-	735	149	884	1	3,530	531	4,062	93	-	-	93
1967	-	923	295	1,217	1	1,548	324	1,873	78	2	-	80
1968	2	819	173	993	8	1,575	815	2,398	109	4	-	113
1969	-	917	399	1,316	2	482	363	846	108	14	-	122
1970	-	993	417	1,410	-	190	269	459	115	17	-	132
1971	-	766	545	1,311	-	72	202	274	223	108	27	358
1972	9	467	339	815	-	289	364	653	487	32	5	524
1973	-	678	386	1,064	-	43	203	245	394	47	19	460
1974	-	557	353	911	-	397	540	937	211	12	-	223
1975	2	491	350	844	1	660	845	1,506	734	7	-	741
1976	261	931	530	1,722	19	1,042	1,911	2,972	349	14	-	363
1977	892	2,545	1,271	4,708	34	930	1,600	2,564	249	5	-	254
1978	370	2,973	2,189	5,532	152	1,678	2,346	4,175	238	3	-	242
1979	188	2,613	3,458	6,259	104	1,553	1,203	2,859	313	35	54	401
1980	73	1,954	3,355	5,382	13	931	1,023	1,968	587	431	454	1,472
1981	77	2,343	5,576	7,996	2	398	473	872	748	237	241	1,225
1982	26	1,794	4,384	6,204	7	727	867	1,601	371	76	184	631
1983	52	1,244	2,951	4,247	19	1,341	1,725	3,085	544	136	136	815
1984	3	1,004	2,004	3,011	16	1,673	1,955	3,643	528	66	55	650
1985	2	808	2,049	2,859	9	1,223	1,991	3,224	315	51	41	407
1986	7	1,023	3,398	4,428	-	1,624	1,633	3,257	247	12	23	282
1987	5	1,096	3,720	4,821	-	3,252	4,236	7,488	323	39	2	364

Class 2: 5-50 GRT; Class 3: 51-150 GRT; Class 4: 151-500 GRT.

Source: NEFC Detailed Weighout Data for vessels using scallop dredges. Mid-Atlantic weighout data are only available from 1978 onward; Weighout data from Virginia ports are available for part of 1981 and from 1982 onward.

Table 11. Percentage distribution of USA commercial sea scallop landings (mt, meats) from Georges Bank (Area 5Ze), the Mid-Atlantic (Statistical Area 6), and the Gulf of Maine (Division 5Y), by vessel tonnage class, 1965 - 1987. Data derived from vessels using scallop dredges and landing in in New England and Mid-Atlantic ports.

	GEORGES BANK				MID-ATLANTIC				GULF OF MAINE			
Year	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total
1965	-	87.0	13.0	100.0	0.5	90.8	8.7	100.0	86.8	13.2	-	100.0
1966	-	83.1	16.9	100.0	0.0	86.9	13.1	100.0	100.0	-	-	100.0
1967	-	75.8	24.2	100.0	0.0	82.6	17.3	100.0	97.4	2.6	-	100.0
1968	0.2	82.4	17.4	100.0	0.3	65.7	34.0	100.0	96.2	3.8	-	100.0
1969	-	69.7	30.3	100.0	0.2	57.0	42.9	100.0	88.4	11.6	-	100.0
1970	-	70.4	29.6	100.0	-	41.4	58.6	100.0	87.1	12.9	-	100.0
1971	-	58.4	41.6	100.0	-	26.4	73.6	100.0	62.3	30.3	7.4	100.0
1972	1.2	57.2	41.6	100.0	-	44.3	55.7	100.0	92.9	6.2	0.9	100.0
1973	-	63.7	36.3	100.0	-	17.3	82.7	100.0	85.7	10.3	4.0	100.0
1974	-	61.2	38.8	100.0	-	42.4	57.6	100.0	94.6	5.4	-	100.0
1975	0.2	58.3	41.5	100.0	0.1	43.8	56.1	100.0	99.1	0.9	-	100.0
1976	15.2	54.0	30.8	100.0	0.6	35.1	64.3	100.0	96.0	4.0	-	100.0
1977	18.9	54.1	27.0	100.0	1.3	36.3	62.4	100.0	98.2	1.8	-	100.0
1978	6.7	53.7	39.6	100.0	3.6	40.2	56.2	100.0	98.6	1.4	-	100.0
1979	3.0	41.7	55.3	100.0	3.6	54.3	42.1	100.0	78.1	8.6	13.3	100.0
1980	1.4	36.3	62.3	100.0	0.7	47.3	52.0	100.0	39.9	29.3	30.8	100.0
1981	1.0	29.3	69.7	100.0	0.2	45.7	54.2	100.0	61.0	19.3	19.6	100.0
1982	0.4	28.9	70.7	100.0	0.4	45.4	54.2	100.0	58.8	12.0	29.2	100.0
1983	1.2	29.3	69.5	100.0	0.6	43.5	55.9	100.0	66.7	16.7	16.6	100.0
1984	0.1	33.3	66.6	100.0	0.4	45.9	53.6	100.0	81.3	10.2	8.5	100.0
1985	0.1	28.3	71.6	100.0	0.3	37.9	61.8	100.0	77.4	12.5	10.1	100.0
1986	0.1	23.1	76.8	100.0	-	49.9	50.1	100.0	87.5	4.4	8.1	100.0
1987	0.1	22.7	77.2	100.0	-	43.4	56.6	100.0	88.7	10.8	0.5	100.0

Class 2: 5-50 GRT; Class 3: 51-150 GRT; Class 4: 151-500 GRT.

Source: NEFC Detailed Weighout Data for vessels using scallop dredges. Mid-Atlantic weighout data are only available from 1978 onward; Weighout data from Virginia ports are available for part of 1981 and from 1982 onward.

Table 12. USA commercial sea scallop landings (mt, meats) by area, year, and month, 1978 - 1987. Landings that could not be directly associated with an area or month (ie., Mass/Conn canvass data; No. Carolina landings in some years) have been excluded.

	MONTH														
AREA/YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	APR-SEP	OCT-MAR
GEORGES BANK															
1978	253	522	399	497	339	190	536	819	628	531	540	316	5,569	3,008	2,561
1979	243	182	518	415	744	763	824	742	609	587	459	302	6,386	4,096	2,291
1980	208	297	296	479	664	760	790	629	608	390	252	183	5,555	3,931	1,624
1981	131	300	377	605	1,135	1,474	1,518	962	675	536	321	331	8,367	6,370	1,997
1982	200	357	495	429	727	889	960	735	527	460	395	298	6,472	4,267	2,205
1983	314	243	191	247	496	625	572	563	414	255	198	173	4,291	2,916	1,375
1984	157	139	77	158	401	377	482	359	230	269	197	198	3,043	2,006	1,037
1985	83	147	93	61	90	366	721	427	297	233	191	213	2,922	1,962	960
1986	69	200	326	383	490	529	645	475	435	325	245	316	4,438	2,957	1,481
1987	233	283	226	19	199	955	801	568	490	368	392	314	4,850	3,034	1,817
MID-ATLANTIC															
1978	151	161	361	624	1,289	1,514	1,453	1,036	632	705	426	233	8,585	6,548	2,037
1979	168	198	510	774	985	902	947	748	467	347	228	170	6,443	4,823	1,620
1980	176	218	232	592	769	623	597	404	431	312	267	204	4,824	3,417	1,408
1981	122	150	207	268	330	267	139	75	132	101	62	39	1,890	1,210	680
1982	21	76	92	172	219	258	162	157	158	119	146	123	1,702	1,126	576
1983	91	154	370	384	414	359	277	348	291	179	173	181	3,221	2,074	1,148
1984	242	306	422	437	428	489	348	302	231	225	207	108	3,745	2,235	1,509
1985	59	111	285	516	774	421	203	282	213	203	140	84	3,291	2,409	882
1986	60	115	175	270	532	655	463	251	270	257	154	156	3,358	2,441	917
1987	62	142	673	1,280	1,392	827	847	791	615	463	426	287	7,804	5,752	2,052
GULF OF MAINE															
1978	40	40	49	19	2	3	3	2	1	1	35	48	243	30	213
1979	39	32	48	25	12	8	9	10	14	25	90	95	406	77	329
1980	103	198	248	263	197	150	70	77	59	30	94	130	1,620	817	804
1981	153	141	144	80	45	37	116	104	109	96	137	92	1,255	492	763
1982	64	46	58	17	25	33	16	32	34	64	110	168	664	155	509
1983	153	94	87	60	32	21	22	26	49	64	150	137	895	210	685
1984	163	127	108	41	6	9	14	4	14	15	100	76	678	89	589
1985	121	95	73	47	1	1	1	0	2	4	40	35	421	53	368
1986	57	79	50	30	4	6	1	3	5	1	27	54	316	49	267
1987	58	52	54	30	20	5	11	7	8	14	57	67	382	81	301
ALL AREAS[1]															
1978	445	723	809	1,140	1,631	1,712	1,996	1,857	1,268	1,245	1,003	598	14,425	9,603	4,821
1979	451	411	1,079	1,231	1,743	1,676	1,789	1,516	1,095	968	790	578	13,327	9,051	4,277
1980	501	717	777	1,377	1,678	1,557	1,490	1,130	1,117	736	615	523	12,216	8,347	3,869
1981	413	597	736	955	1,511	1,793	1,788	1,146	929	759	537	474	11,637	8,121	3,516
1982	288	479	664	632	971	1,201	1,175	941	735	651	658	593	8,988	5,655	3,333
1983	560	497	648	700	955	1,039	924	982	786	522	536	515	8,664	5,386	3,278
1984	573	581	624	651	849	894	867	689	497	513	507	385	7,630	4,448	3,183
1985	266	355	462	635	875	795	926	725	517	446	374	339	6,715	4,473	2,242
1986	186	395	552	690	1,035	1,198	1,129	737	717	587	437	527	8,190	5,506	2,684
1987	354	485	961	1,336	1,619	1,795	1,667	1,373	1,113	849	881	673	13,104	8,903	4,201

[1] Includes landings from Southern New England (Area 5Zw) as well as Georges Bank, Mid-Atlantic, and Gulf of Maine.

Table 13. Percentage distribution of annual USA commercial sea scallop landings (mt, meats) from Georges Bank (Area 5Ze), the Mid-Atlantic (Area 6), and the Gulf of Maine (Area 5Y), by month, 1978 - 1987.

	MONTH														
AREA/YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	APR-SEP	OCT-MAR
GEORGES BANK															
1978	4.5	9.4	7.2	8.9	6.1	3.4	9.6	14.7	11.3	9.5	9.7	5.7	100.0	54.0	46.0
1979	3.8	2.8	8.1	6.5	11.6	11.9	12.9	11.6	9.5	9.2	7.2	4.7	100.0	64.1	35.9
1980	3.7	5.3	5.3	8.6	11.9	13.7	14.2	11.3	11.0	7.0	4.5	3.3	100.0	70.8	29.2
1981	1.6	3.6	4.5	7.2	13.6	17.6	18.1	11.5	8.1	6.4	3.8	4.0	100.0	76.1	23.9
1982	3.1	5.5	7.7	6.6	11.2	13.7	14.8	11.4	8.1	7.1	6.1	4.6	100.0	65.9	34.1
1983	7.3	5.7	4.5	5.7	11.6	14.6	13.3	13.1	9.6	5.9	4.6	4.0	100.0	68.0	32.0
1984	5.1	4.6	2.5	5.2	13.2	12.4	15.8	11.8	7.6	8.9	6.5	6.5	100.0	65.9	34.1
1985	2.8	5.0	3.2	2.1	3.1	12.5	24.7	14.6	10.2	8.0	6.5	7.3	100.0	67.1	32.9
1986	1.6	4.5	7.4	8.6	11.0	11.9	14.5	10.7	9.8	7.3	5.5	7.1	100.0	66.6	33.4
1987	4.8	5.8	4.7	0.4	4.1	19.7	16.5	11.7	10.1	7.6	8.1	6.5	100.0	62.5	37.5
1978-1987[1]	3.8	5.2	5.5	6.0	9.7	13.1	15.5	12.2	9.5	7.7	6.3	5.4	100.0	66.1	33.9
MID-ATLANTIC															
1978	1.8	1.9	4.2	7.3	15.0	17.6	16.9	12.1	7.4	8.2	5.0	2.7	100.0	76.3	23.7
1979	2.6	3.1	7.9	12.0	15.3	14.0	14.7	11.6	7.2	5.4	3.5	2.6	100.0	74.9	25.1
1980	3.6	4.5	4.8	12.3	15.9	12.9	12.4	8.4	8.9	6.5	5.5	4.2	100.0	70.8	29.2
1981	6.5	7.9	10.9	14.2	17.4	14.1	7.4	3.9	7.0	5.3	3.3	2.1	100.0	64.0	36.0
1982	1.2	4.4	5.4	10.1	12.9	15.2	9.5	9.2	9.3	7.0	8.6	7.2	100.0	66.2	33.8
1983	2.8	4.8	11.5	11.9	12.9	11.2	8.6	10.8	9.0	5.5	5.4	5.6	100.0	64.4	35.6
1984	6.5	8.2	11.3	11.7	11.4	13.1	9.3	8.1	6.2	6.0	5.5	2.9	100.0	59.7	40.3
1985	1.8	3.4	8.6	15.7	23.5	12.8	6.2	8.6	6.5	6.2	4.3	2.5	100.0	73.2	26.8
1986	1.8	3.4	5.2	8.1	15.8	19.5	13.8	7.5	8.1	7.6	4.6	4.7	100.0	72.7	27.3
1987	0.8	1.8	8.6	16.4	17.8	10.6	10.8	10.1	7.9	5.9	5.5	3.7	100.0	73.7	26.3
1978-1987[1]	2.9	4.3	7.9	12.0	15.8	14.1	11.0	9.0	7.7	6.4	5.1	3.8	100.0	69.6	30.4
GULF OF MAINE															
1978	16.6	16.7	20.0	8.0	1.0	1.0	1.0	0.7	0.5	0.2	14.3	20.0	100.0	12.2	87.8
1979	9.7	7.8	11.8	6.1	3.0	1.9	2.1	2.4	3.4	6.2	22.1	23.5	100.0	19.0	81.0
1980	6.4	12.2	15.3	16.2	12.2	9.3	4.3	4.7	3.7	1.8	5.8	8.0	100.0	50.4	49.6
1981	12.2	11.2	11.5	6.4	3.6	3.0	9.2	8.3	8.7	7.7	10.9	7.3	100.0	39.2	60.8
1982	9.6	6.9	8.7	2.6	3.7	5.0	2.3	4.7	5.0	9.6	16.6	25.3	100.0	23.4	76.6
1983	17.1	10.5	9.7	6.7	3.6	2.3	2.4	2.9	5.5	7.2	16.7	15.3	100.0	23.5	76.5
1984	24.1	18.8	16.0	6.1	0.9	1.4	2.1	0.6	2.1	2.3	14.7	11.1	100.0	13.1	86.9
1985	28.7	22.7	17.2	11.2	0.3	0.3	0.3	0.1	0.4	0.9	9.5	8.3	100.0	12.6	87.4
1986	18.0	24.9	15.7	9.5	1.2	1.9	0.4	1.0	1.5	0.2	8.6	17.1	100.0	15.6	84.4
1987	15.2	13.5	14.0	7.9	5.3	1.3	2.8	1.9	2.1	3.6	14.9	17.6	100.0	21.2	78.8
1978-1987[1]	15.7	14.5	14.0	8.1	3.5	2.7	2.7	2.8	3.3	4.0	13.4	15.4	100.0	23.0	77.0
ALL AREAS[2]															
1978	3.1	5.0	5.6	7.9	11.3	11.9	13.8	12.9	8.8	8.6	6.9	4.1	100.0	66.6	33.4
1979	3.4	3.1	8.1	9.2	13.1	12.6	13.4	11.4	8.2	7.3	5.9	4.3	100.0	67.9	32.1
1980	4.1	5.9	6.4	11.3	13.7	12.7	12.2	9.2	9.1	6.0	5.0	4.3	100.0	68.3	31.7
1981	3.5	5.1	6.3	8.2	13.0	15.4	15.4	9.8	8.0	6.5	4.6	4.1	100.0	69.8	30.2
1982	3.2	5.3	7.4	7.0	10.8	13.4	13.1	10.5	8.2	7.2	7.3	6.6	100.0	62.9	37.1
1983	6.5	5.7	7.5	8.1	11.0	12.0	10.7	11.3	9.1	6.0	6.2	5.9	100.0	62.2	37.8
1984	7.5	7.6	8.2	8.5	11.1	11.7	11.4	9.0	6.5	6.7	6.6	5.0	100.0	58.3	41.7
1985	4.0	5.3	6.9	9.4	13.0	11.8	13.8	10.8	7.7	6.6	5.6	5.1	100.0	66.6	33.4
1986	2.3	4.8	6.7	8.4	12.6	14.6	13.8	9.0	8.8	7.2	5.3	6.4	100.0	67.2	32.8
1987	2.7	3.7	7.3	10.2	12.4	13.7	12.7	10.5	8.5	6.5	6.7	5.1	100.0	67.9	32.1
1978-1987[1]	4.0	5.2	7.0	8.8	12.2	13.0	13.0	10.4	8.3	6.9	6.0	5.1	100.0	65.8	34.2

[1] Mean of monthly percentages.
[2] Includes landings from Southern New England (Area 5Zw) as well as Georges Bank, Mid-Atlantic, and Gulf of Maine.

Table 14. USA commercial sea scallop effort (days fished) from Georges Bank (Area 5Ze), the Mid-Atlantic (Statistical Area 6), and the Gulf of Maine (Division 5Y), by vessel tonnage class, 1965 - 1987. Data derived from vessels using scallop dredges and landing in New England and Mid-Atlantic ports.

	GEORGES BANK				MID-ATLANTIC				GULF OF MAINE				TOTALS			
Year	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Total	Class 2	Class 3	Class 4	Grand Total
1965	-	1,922	216	2,138	48	3,621	313	3,982	261	20	-	281	309	5,563	529	6,401
1966	-	886	169	1,055	3	3,784	525	4,312	270	-	-	270	273	4,671	694	5,638
1967	-	1,468	402	1,870	5	2,224	452	2,681	239	3	-	242	244	3,695	854	4,793
1968	6	1,500	304	1,810	39	2,517	1,180	3,737	424	13	-	437	468	4,030	1,484	5,983
1969	-	1,953	760	2,713	4	1,142	701	1,847	511	54	-	565	514	3,149	1,461	5,125
1970	-	1,755	823	2,578	-	477	516	993	584	50	-	634	584	2,282	1,339	4,205
1971	-	1,424	989	2,413	-	240	480	719	1,063	116	37	1,216	1,063	1,780	1,506	4,348
1972	20	965	806	1,791	-	718	689	1,406	1,999	91	10	2,099	2,019	1,773	1,504	5,297
1973	-	1,103	740	1,842	-	128	428	556	2,365	129	31	2,524	2,365	1,360	1,198	4,922
1974	-	812	576	1,388	-	524	701	1,225	1,546	34	-	1,580	1,546	1,369	1,277	4,192
1975	11	594	495	1,100	3	819	924	1,746	2,393	14	-	2,407	2,407	1,428	1,419	5,253
1976	308	914	517	1,739	60	984	1,626	2,670	2,258	32	-	2,290	2,625	1,931	2,143	6,699
1977	1,028	2,314	1,121	4,463	71	818	1,216	2,105	1,371	4	-	1,376	2,471	3,136	2,337	7,943
1978	675	3,177	2,089	5,941	199	1,888	1,833	3,921	1,606	6	-	1,612	2,481	5,071	3,922	11,473
1979	445	4,057	4,405	8,907	150	2,566	1,564	4,280	1,854	79	45	1,977	2,449	6,702	6,014	15,165
1980	301	4,642	6,133	11,076	39	2,358	1,993	4,391	2,827	347	249	3,423	3,167	7,347	8,375	18,889
1981	165	4,619	8,578	13,361	3	1,240	1,194	2,437	2,700	265	233	3,198	2,868	6,124	10,005	18,996
1982	61	3,462	7,572	11,095	33	1,985	1,785	3,802	1,671	161	268	2,100	1,764	5,608	9,625	16,997
1983	215	3,228	7,027	10,470	37	3,791	3,091	6,918	3,758	390	256	4,404	4,009	7,408	10,374	21,791
1984	16	3,276	6,209	9,501	50	5,091	4,997	10,138	2,675	229	145	3,048	2,741	8,597	11,350	22,687
1985	14	2,650	6,610	9,273	32	4,286	5,539	9,856	1,833	220	148	2,201	1,879	7,155	12,298	21,331
1986	35	2,898	8,528	11,461	-	3,890	3,236	7,126	1,660	74	68	1,802	1,695	6,862	11,833	20,389
1987	9	2,412	7,777	10,198	-	5,509	7,129	12,637	1,133	139	8	1,280	1,142	8,059	14,914	24,115

Class 2: 5-50 GRT; Class 3: 51-150 GRT; Class 4: 151-500 GRT.

Source: NEFC Detailed Weighout Data for vessels using scallop dredges. Mid-Atlantic weighout data are only available from 1978 onward; Weighout data from Virginia ports are available for part of 1981 and from 1982 onward.

Table 15. USA commercial sea scallop catch rates (mt of meats per day fished) from Georges Bank (Area 5Ze), the Mid-Atlantic (Statistical Area 6), and the Gulf of Maine (Division 5Y), by vessel tonnage class, 1965 - 1987. Data derived from vessels using scallop dredges and landing in New England and Mid-Atlantic ports.

	GEORGES BANK				MID-ATLANTIC				GULF OF MAINE				TOTALS			
Year	Class 2	Class 3	Class 4	Annual[1] Mean	Class 2	Class 3	Class 4	Annual[1] Mean	Class 2	Class 3	Class 4	Annual[1] Mean	Class 2	Class 3	Class 4	Annual[1] Mean
1965	-	0.67	0.89	0.70	0.43	1.00	1.10	1.00	0.38	0.74	-	0.43	0.52	0.88	1.02	0.89
1966	-	0.83	0.88	0.84	0.23	0.93	1.01	0.94	0.34	-	-	0.34	0.23	0.91	0.98	0.92
1967	-	0.63	0.73	0.65	0.16	0.70	0.72	0.70	0.32	0.78	-	0.34	0.38	0.67	0.72	0.68
1968	0.27	0.55	0.57	0.55	0.20	0.63	0.69	0.65	0.26	0.34	-	0.26	0.24	0.60	0.67	0.61
1969	-	0.47	0.53	0.49	0.43	0.42	0.52	0.46	0.21	0.26	-	0.22	0.27	0.45	0.52	0.47
1970	-	0.57	0.51	0.55	-	0.40	0.52	0.47	0.20	0.34	-	0.22	0.34	0.53	0.51	0.52
1971	-	0.54	0.55	0.54	-	0.30	0.42	0.39	0.21	0.93	0.71	0.47	0.93	0.51	0.51	0.54
1972	0.46	0.48	0.42	0.46	-	0.40	0.53	0.47	0.24	0.36	0.49	0.25	0.38	0.45	0.47	0.46
1973	-	0.61	0.52	0.58	-	0.33	0.47	0.45	0.17	0.37	0.61	0.20	0.37	0.59	0.50	0.54
1974	-	0.69	0.61	0.66	-	0.76	0.77	0.77	0.14	0.36	-	0.15	0.36	0.71	0.70	0.71
1975	0.19	0.83	0.71	0.78	0.27	0.81	0.91	0.87	0.31	0.46	-	0.31	0.34	0.81	0.84	0.83
1976	0.85	1.02	1.03	1.00	0.31	1.06	1.18	1.13	0.15	0.45	-	0.17	0.74	1.04	1.14	1.07
1977	0.87	1.10	1.13	1.07	0.48	1.14	1.32	1.24	0.18	1.12	-	0.20	0.84	1.11	1.23	1.12
1978	0.55	0.94	1.05	0.95	0.76	0.89	1.28	1.10	0.15	0.56	-	0.15	0.60	0.92	1.16	1.01
1979	0.42	0.64	0.78	0.72	0.69	0.61	0.77	0.68	0.17	0.44	1.20	0.33	0.48	0.63	0.78	0.70
1980	0.24	0.42	0.55	0.50	0.34	0.39	0.51	0.46	0.21	1.24	1.82	1.01	0.75	0.46	0.54	0.52
1981	0.47	0.51	0.65	0.61	0.53	0.32	0.40	0.36	0.28	0.89	1.03	0.54	0.73	0.49	0.62	0.58
1982	0.43	0.52	0.58	0.56	0.20	0.37	0.49	0.43	0.22	0.47	0.69	0.39	0.43	0.47	0.56	0.53
1983	0.24	0.39	0.42	0.41	0.52	0.35	0.56	0.47	0.14	0.35	0.53	0.24	0.32	0.37	0.46	0.43
1984	0.18	0.31	0.32	0.32	0.32	0.33	0.39	0.36	0.20	0.29	0.38	0.22	0.29	0.32	0.35	0.34
1985	0.14	0.31	0.31	0.31	0.30	0.29	0.36	0.33	0.17	0.23	0.28	0.19	0.23	0.29	0.33	0.32
1986	0.19	0.35	0.40	0.39	-	0.42	0.50	0.46	0.15	0.17	0.34	0.16	0.17	0.39	0.43	0.41
1987	0.52	0.45	0.48	0.47	-	0.59	0.59	0.59	0.28	0.28	0.25	0.28	0.30	0.55	0.53	0.54

Class 2: 5-50 GRT; Class 3: 51-150 GRT; Class 4: 151-500 GRT.

[1] Annual mean catch rates for each area were derived by weighting individual tonnage class annual catch rates by the percentage of total annual landings accounted for by each vessel class, and summing the weighted catch rates over all three vessel class categories.

Table 16. USA sea scallop research survey relative abundance indices (standardized stratified mean number and mean weight per tow) [meats only, kg], mean shell height (mm), mean meat weight (g) per scallop, and average meat weight (number of scallop meats per pound) of sea scallops from NMFS surveys on Georges Bank, 1975, 1977-1988. Data are presented by principal scallop regions on Georges Bank. Survey indices are presented for pre-recruit (<70 mm shell height), recruit (≥70 mm shell height), and total scallops per tow[1].

Area	Year	Standardized Stratified Mean Number Per Tow			Standardized Stratified Mean Weight (kg) Per Tow			Mean Shell Height	Mean Meat Weight[2]	Average Meat Count[3]
		Pre-recruit	Recruit	Total	Pre-recruit	Recruit	Total			
South Channel	1975	30.2	26.3	56.5	0.07	0.77	0.84	81.9	14.8	30.6
	1977	3.9	53.0	56.9	0.01	1.15	1.16	101.1	20.4	22.2
	1978	5.2	33.2	38.4	0.02	0.76	0.78	101.2	20.4	22.2
	1979	4.5	56.5	61.0	0.01	0.98	0.99	93.1	16.2	28.0
	1980	51.2	19.3	70.5	0.08	0.35	0.43	58.2	6.1	74.6
	1981	9.9	24.0	33.9	0.02	0.43	0.45	81.2	13.3	34.0
	1982	139.3	41.9	181.2	0.32	0.60	0.92	60.7	5.1	89.4
	1983	15.2	37.0	52.2	0.04	0.52	0.56	79.6	10.7	42.3
	1984	10.2	17.9	28.1	0.02	0.35	0.37	81.2	13.3	34.1
	1985	30.1	33.1	63.2	0.08	0.53	0.61	74.2	9.6	47.1
	1986	94.7	30.4	125.1	0.20	0.47	0.67	59.5	5.4	84.2
	1987	54.4	36.0	90.4	0.11	0.46	0.57	63.6	6.3	71.7
	1988	21.3	23.2	44.5	0.05	0.29	0.35	70.1	7.8	58.3
Southeast Part	1975	1.8	38.4	40.2	<0.01	1.02	1.02	110.3	25.5	17.8
	1977	2.9	24.7	27.6	0.01	0.62	0.63	103.9	22.8	19.9
	1978	2.1	24.8	26.9	0.01	0.86	0.87	117.5	32.2	14.1
	1979	6.9	19.2	26.1	0.01	0.64	0.65	99.4	24.9	18.2
	1980	19.4	37.4	56.8	0.03	0.63	0.66	78.2	11.7	38.8
	1981	1.3	17.4	18.7	<0.01	0.42	0.42	102.5	22.2	20.5
	1982	0.7	8.8	9.5	<0.01	0.28	0.28	113.5	29.9	15.2
	1983	10.2	8.4	18.6	0.02	0.23	0.25	78.7	13.7	33.2
	1984	4.2	12.1	16.3	0.01	0.22	0.23	86.6	14.4	31.4
	1985	8.2	10.9	19.1	0.02	0.21	0.23	76.0	11.8	38.4
	1986	26.1	18.7	44.8	0.05	0.37	0.42	66.4	9.5	48.0
	1987	20.7	35.8	56.5	0.05	0.55	0.60	79.1	10.7	42.5
	1988	1.3	15.2	16.5	<0.01	0.30	0.30	96.9	18.3	24.8
Northern Edge and Peak	1975	86.8	120.6	207.4	0.23	1.81	2.04	77.0	9.8	46.2
	1977	66.1	384.8	450.9	0.24	5.06	5.30	85.3	11.8	38.6
	1978	178.6	372.0	550.6	0.31	7.56	7.87	84.9	14.3	31.7
	1979	64.3	234.9	299.2	0.18	4.03	4.21	87.2	14.1	32.2
	1980	598.6	129.3	727.9	0.82	1.85	2.67	52.4	3.7	123.9
	1981	277.4	405.7	683.1	0.63	3.79	4.42	68.9	6.5	70.1
	1982	37.0	58.8	95.8	0.11	0.85	0.96	78.1	10.0	45.2
	1983	43.4	33.4	76.8	0.07	0.60	0.67	68.2	8.7	51.9
	1984	264.2	48.6	312.8	0.27	0.75	1.02	46.7	3.3	139.2
	1985	76.1	173.2	249.3	0.23	1.67	1.90	73.9	7.6	59.4
	1986	155.7	175.9	331.6	0.35	2.33	2.68	72.0	8.1	56.2
	1987	133.4	103.1	236.5	0.26	1.38	1.64	66.2	6.9	65.6
	1988	89.4	111.9	201.3	0.21	1.38	1.59	70.5	7.9	57.6
Georges Bank (All Areas)	1975	46.3	62.8	109.1	0.12	1.19	1.31	80.2	12.0	37.8
	1977	27.9	176.4	204.3	0.10	2.57	2.67	87.6	13.1	34.7
	1978	66.5	152.5	219.0	0.12	3.21	3.33	87.0	15.2	29.8
	1979	28.8	121.7	150.5	0.08	2.14	2.22	88.6	14.8	30.7
	1980	305.3	74.7	380.0	0.42	1.11	1.53	53.5	4.0	112.6
	1981	76.4	120.1	196.5	0.17	1.29	1.46	70.7	7.4	61.2
	1982	73.2	43.9	117.1	0.18	0.66	0.84	67.5	7.1	63.5
	1983	26.5	30.9	57.4	0.05	0.51	0.56	73.0	9.7	46.6
	1984	118.6	30.1	148.7	0.13	0.50	0.63	50.1	4.2	107.2
	1985	46.4	89.9	136.3	0.13	0.97	1.10	74.0	8.1	56.0
	1984	114.3	108.4	222.7	0.25	1.48	1.73	70.1	7.8	58.5
	1987	83.1	64.8	147.9	0.16	0.87	1.03	66.3	7.0	64.9
	1988	47.4	60.1	107.5	0.11	0.76	0.87	71.1	8.1	55.9

[1]Relative abundance indices for the Northern Edge and Peak, 1978-1981, 1986 were derived from Canadian research vessel survey data standardized to USA tow distance.

[2]Mean meat weight derived by applying the 1978-1982 USA Georges Bank research survey sea scallop shell height-meat weight equation, ln Meat Weight (g) = -11.7656 + 3.1693 ln Shell Height (mm) ($n = 5863$, $r = 0.98$), to each shell height in the survey frequency distribution, multiplying by the frequency at height, summing the products, and dividing by the total number of scallops in the frequency distribution.

[3]Average meat count derived by dividing the calculated mean meat weight into 453.6 grams (1 pound).

Table 17. USA sea scallop research survey relative abundance indices (standardized stratified mean number and mean weight per tow) [meats only, kg], mean shell height (mm), mean meat weight (g) per scallop, and average meat weight (number of scallop meats per pound) of sea scallops from NMFS surveys on the USA Northern Edge and Peak region of Georges Bank and from the entire USA sector of Georges Bank, 1985-1988. Indices are presented for pre-recruit (<70 mm shell height), recruit (>70 mm shell height), and total scallops per tow.

Area	Year	Standardized Stratified Mean Number Per Tow			Standardized Stratified Mean Weight (kg) Per Tow			Mean Shell Height	Mean Meat Weight	Average Meat Count
		Pre-recruit	Recruit	Total	Pre-recruit	Recruit	Total			
USA Northern Edge and Peak										
	1985	18.5	23.2	41.7	0.05	0.35	0.40	72.7	9.5	47.8
	1986	38.7	24.3	63.0	0.11	0.41	0.52	70.3	8.2	55.3
	1987	52.5	46.2	98.7	0.10	0.62	0.72	67.1	7.3	62.1
	1988	55.8	51.7	107.5	0.12	0.66	0.78	66.4	7.3	62.5
USA Sector of Georges Bank										
	1985	22.2	25.7	47.9	0.16	0.31	0.47	73.9	9.8	46.5
	1986	52.4	24.7	77.1	0.12	0.42	0.54	64.5	7.0	64.7
	1987	47.4	39.4	86.8	0.09	0.53	0.62	66.8	7.2	62.8
	1988	29.1	31.1	60.2	0.07	0.41	0.48	69.3	8.0	56.6

Table 18. USA sea scallop research survey relative abundance indices (standardized stratified mean number and mean weight per tow), [meats only, kg], mean shell height (mm), mean meat weight (g) per scallop, and average meat count (number of scallop meats per pound) of sea scallops from NMFS surveys in the Mid-Atlantic, 1975, 1977-1988. Data are presented by principal scallop regions in the Mid-Atlantic. Survey indices are presented for pre-recruit (<70 mm shell height), recruit (≥70 mm shell height), and total scallops per tow.

		Standardized Stratified Mean Number Per Tow			Standardized Stratified Mean Weight (kg) Per Tow			Mean Shell	Mean Meat	Average Meat
Area	Year	Pre-recruit	Recruit	Total	Pre-recruit	Recruit	Total	Height	Weight[1]	Count[2]
New York Bight	1975	27.3	23.8	51.1	0.07	0.43	0.50	75.3	9.6	47.1
	1977	1.1	39.7	40.8	0.01	0.72	0.72	98.5	17.7	25.7
	1978	2.5	36.7	39.2	0.01	0.80	0.81	102.6	20.6	22.0
	1979	3.9	13.7	17.6	0.01	0.35	0.36	95.3	20.2	22.4
	1980	10.7	10.8	21.5	0.02	0.25	0.27	75.7	12.4	35.6
	1981	13.1	13.5	26.6	0.02	0.21	0.23	68.2	8.6	52.5
	1982	7.9	15.1	23.0	0.02	0.24	0.26	78.5	11.1	40.8
	1983	8.0	9.9	17.9	0.02	0.20	0.22	80.6	12.5	36.2
	1984	13.0	13.9	26.9	0.02	0.23	0.25	70.3	9.4	48.3
	1985	34.0	22.1	56.1	0.07	0.31	0.38	65.7	6.8	66.5
	1986	37.0	34.5	71.5	0.08	0.46	0.54	69.9	7.6	59.6
	1987	66.5	32.1	98.6	0.12	0.41	0.53	61.7	5.4	83.9
	1988	53.7	70.5	124.2	0.08	0.88	0.96	68.5	7.7	58.9
Delmarva	1975	25.2	16.1	41.3	0.09	0.24	0.33	72.1	7.9	57.7
	1977	2.9	24.2	27.1	0.01	0.60	0.62	103.9	22.7	20.0
	1978	8.3	26.2	34.5	0.03	0.62	0.65	95.7	18.9	24.1
	1979	30.8	39.3	70.1	0.05	0.60	0.65	73.7	9.3	48.9
	1980	23.4	13.3	36.7	0.04	0.27	0.31	66.8	8.4	54.3
	1981	2.8	5.9	8.7	0.01	0.15	0.16	90.1	18.0	25.2
	1982	5.5	8.0	13.5	0.02	0.18	0.20	85.2	14.5	31.3
	1983	7.8	5.4	13.2	0.03	0.13	0.16	78.7	11.8	38.4
	1984	5.4	6.9	12.3	0.01	0.15	0.16	75.8	12.8	35.5
	1985	24.0	11.4	35.4	0.04	0.18	0.22	57.1	6.3	72.1
	1986	34.0	22.1	56.1	0.10	0.25	0.35	67.7	6.2	72.7
	1987	17.0	18.7	35.7	0.05	0.24	0.29	74.6	8.1	55.7
	1988	22.7	12.8	35.5	0.05	0.23	0.28	67.4	7.8	58.3
Virginia-No. Carolina	1975	47.7	11.0	58.7	0.17	0.14	0.31	66.0	5.3	86.2
	1977	0.2	0.3	0.5	0.01	0.01	0.01	88.7	14.2	31.9
	1978	15.7	7.3	23.0	0.06	0.09	0.15	68.7	6.4	71.2
	1979	4.6	6.5	11.1	0.01	0.10	0.11	75.3	9.9	45.9
	1980	0.8	4.6	5.4	0.01	0.07	0.07	87.9	13.5	33.7
	1981	0.4	0.8	1.2	0.01	0.02	0.02	95.2	18.5	24.5
	1982	1.0	0.3	1.3	0.01	0.01	0.01	67.3	7.5	60.2
	1983	4.7	2.0	6.7	0.01	0.07	0.08	74.7	11.6	39.0
	1984	0.1	0.8	0.9	0.01	0.02	0.02	95.3	17.4	26.1
	1985	2.9	2.3	5.2	0.01	0.03	0.04	70.8	7.5	60.2
	1986	0.3	0.1	0.4	0.01	0.01	0.01	69.1	8.1	55.9
	1987	0.4	0.1	0.5	0.01	0.01	0.01	66.9	5.8	78.0
	1988	0.6	0.6	1.2	<0.01	0.01	0.01	77.8	10.8	42.2
Mid-Atlantic (All Areas)	1975	29.0	19.6	48.6	0.08	0.33	0.41	73.0	8.5	53.4
	1977	1.6	30.3	31.9	0.01	0.61	0.61	100.0	19.0	23.8
	1978	6.0	29.7	35.7	0.02	0.66	0.68	97.8	18.9	23.9
	1979	13.9	22.9	36.8	0.02	0.43	0.45	79.9	12.4	36.6
	1980	14.8	11.3	26.1	0.02	0.25	0.27	71.3	10.4	43.8
	1981	8.6	10.0	18.6	0.01	0.18	0.19	72.0	10.3	44.2
	1982	6.2	10.9	17.1	0.01	0.19	0.20	80.2	12.0	37.9
	1983	7.6	7.4	15.0	0.02	0.16	0.18	79.7	12.3	37.0
	1984	8.8	10.0	18.8	0.01	0.18	0.19	71.6	10.2	44.5
	1985	26.8	16.1	42.9	0.06	0.23	0.29	63.4	6.7	67.8
	1986	31.5	26.1	57.6	0.08	0.33	0.41	69.0	7.2	63.4
	1987	41.7	23.7	65.4	0.09	0.30	0.39	64.1	5.9	76.7
	1988	36.7	42.5	79.2	0.06	0.55	0.61	68.3	7.7	58.8

[1]Mean meat weight derived by applying the 1977-1982 USA Mid-Atlantic research survey sea scallop shell height-meat weight equation,

$$\ln \text{Meat Weight (g)} = -12.1628 + 3.2539 \ln \text{Shell Height (mm)} \quad (n = 11943,\ r = 0.98).$$

to each shell height in the survey frequency distribution, multiplying by the frequency at height, summing the products, and dividing by the total number of scallops in the frequency distribution.

[2]Average meat count derived by dividing the calculated mean meat weight into 453.6 grams (1 pound).

Table 19. 1988 percentage distribution of harvestable biomass (meat weight) of sea scallops in the USA Georges Bank and Mid-Atlantic regions, within various meat count intervals. Harvestable biomass is defined as all sea scallops ≥70 mm shell height (≤80 count). Data derived from distribution of standardized stratified mean meat weight per tow in NMFS 1988 research vessel sea scallop survey.

	Percent Harvestable Biomass			
	Meat Count Interval			
Area	80-40	40-35	35-30	<30
South Channel	41.1	8.3	7.8	42.8
Southeast Part	13.9	7.0	9.4	69.7
USA No. Edge And Peak	38.9	13.3	9.7	38.1
USA Georges Bank	**36.3**	**10.8**	**9.0**	**43.9**
New York Bight	45.1	10.8	7.2	36.9
Delmarva	13.0	10.1	10.7	66.2
Virginia-No. Carolina	9.2	5.3	11.2	74.3
Mid-Atlantic	**40.5**	**10.7**	**7.7**	**41.1**
Total USA Georges Bank and Mid-Atlantic Areas	**39.3**	**10.7**	**8.1**	**41.9**

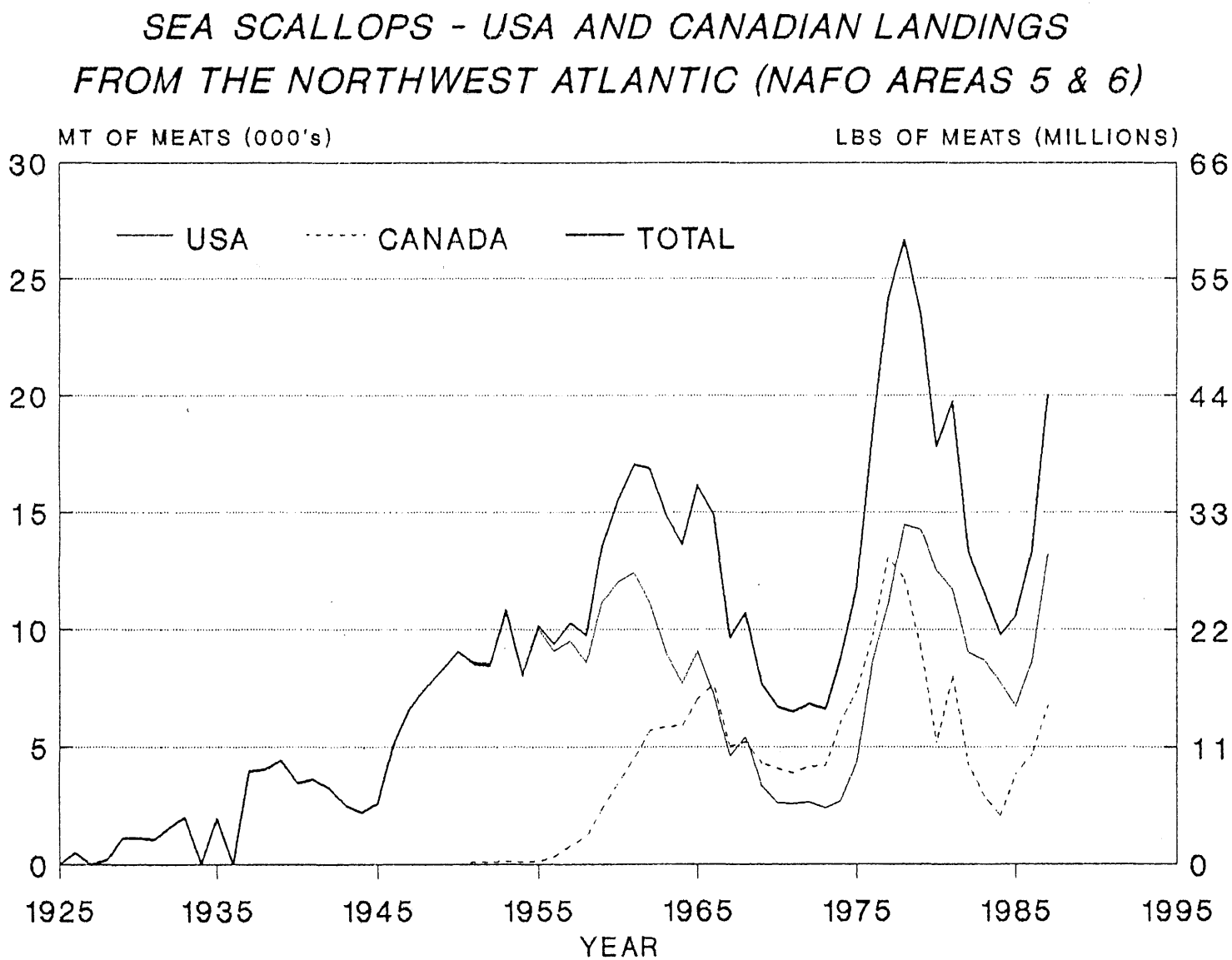

Figure 1. USA and Canadian commercial sea scallop landings (metric tons, meats) from the Northwest Atlantoc (NAFO Areas 5 and 6), 1925 - 1987.

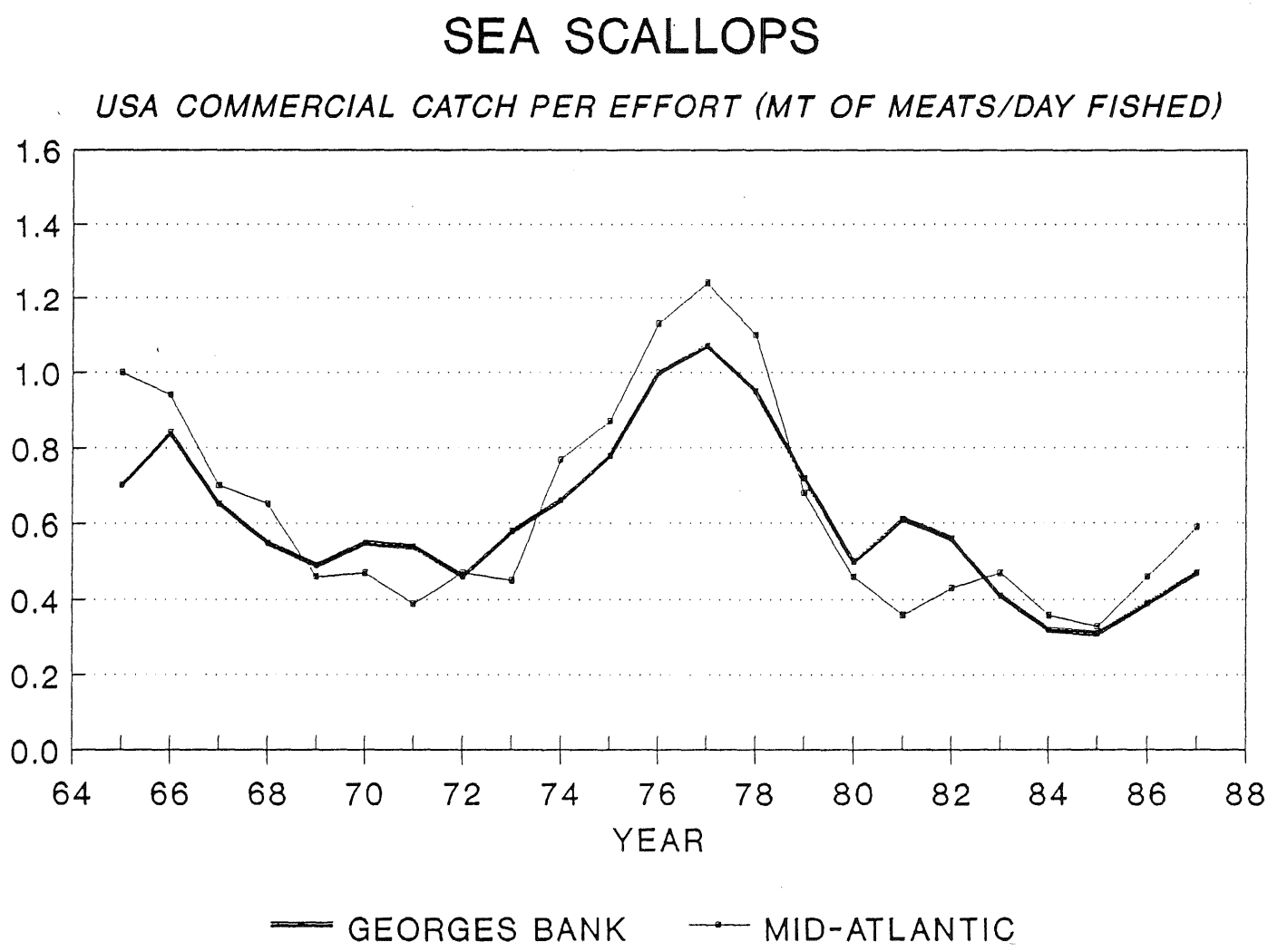

Figure 2. USA commercial sea scallop catch rates (metric tons of meats landed per day fished) from Georges Bank (NAFO Subdivision 5Ze) and the Mid-Atlantic region. Data derived from vessels using scallop dredges and landing in New England (1965-1987) and Mid-Atlantic (1978-1987) ports.

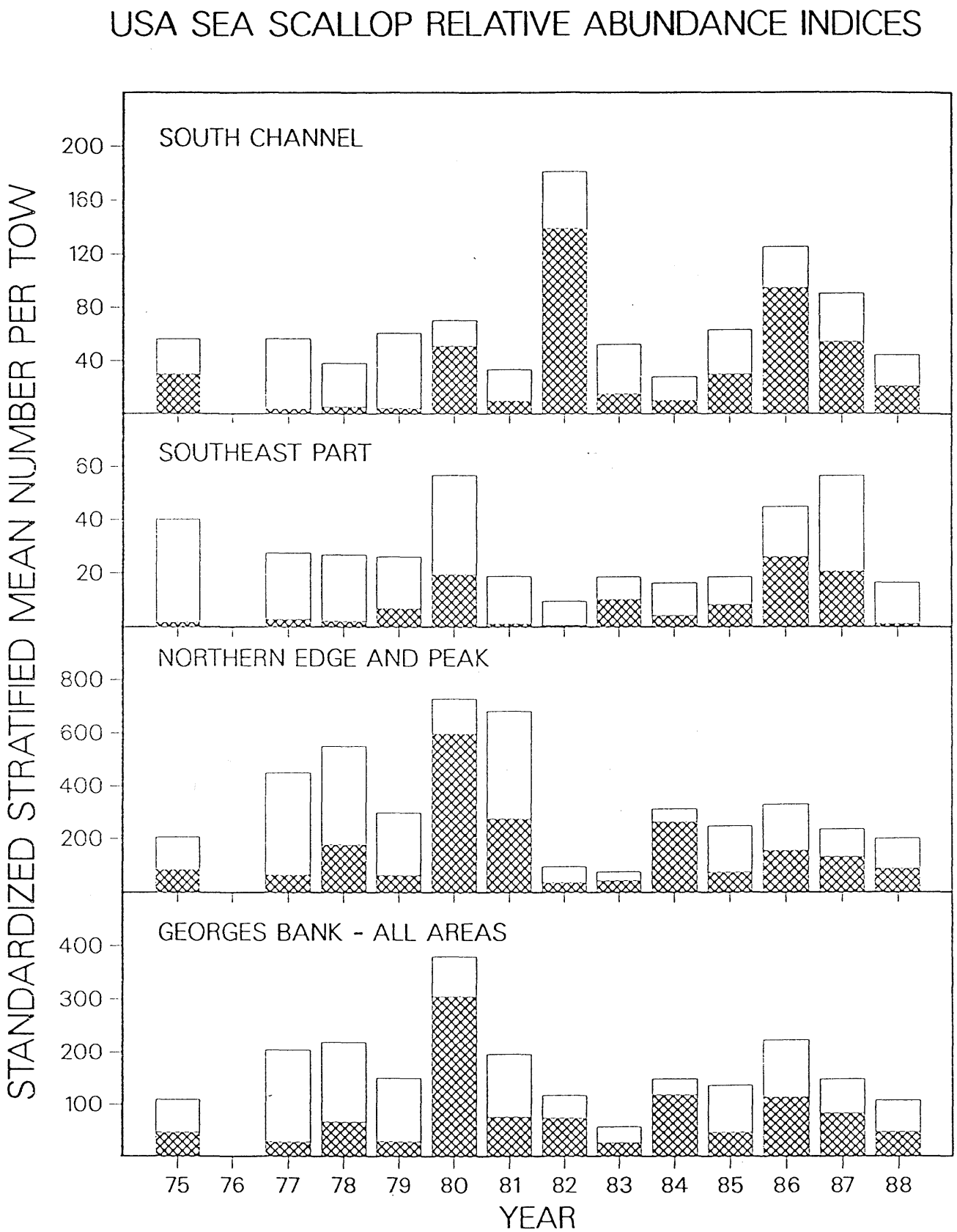

Figure 3. Relative abundance indices of sea scallops, by principal scallop region on Georges Bank, from USA sea scallop research vessel surveys of Georges Bank conducted during 1975 and 1977-1988. The shaded portion of each bar represents the relative abundance of pre-recruit scallops (<70 mm shell height); the upper, non-shaded portion of each bar represents the relative abundance of recruit or commercial-size scallops (≥70 mm shell height).

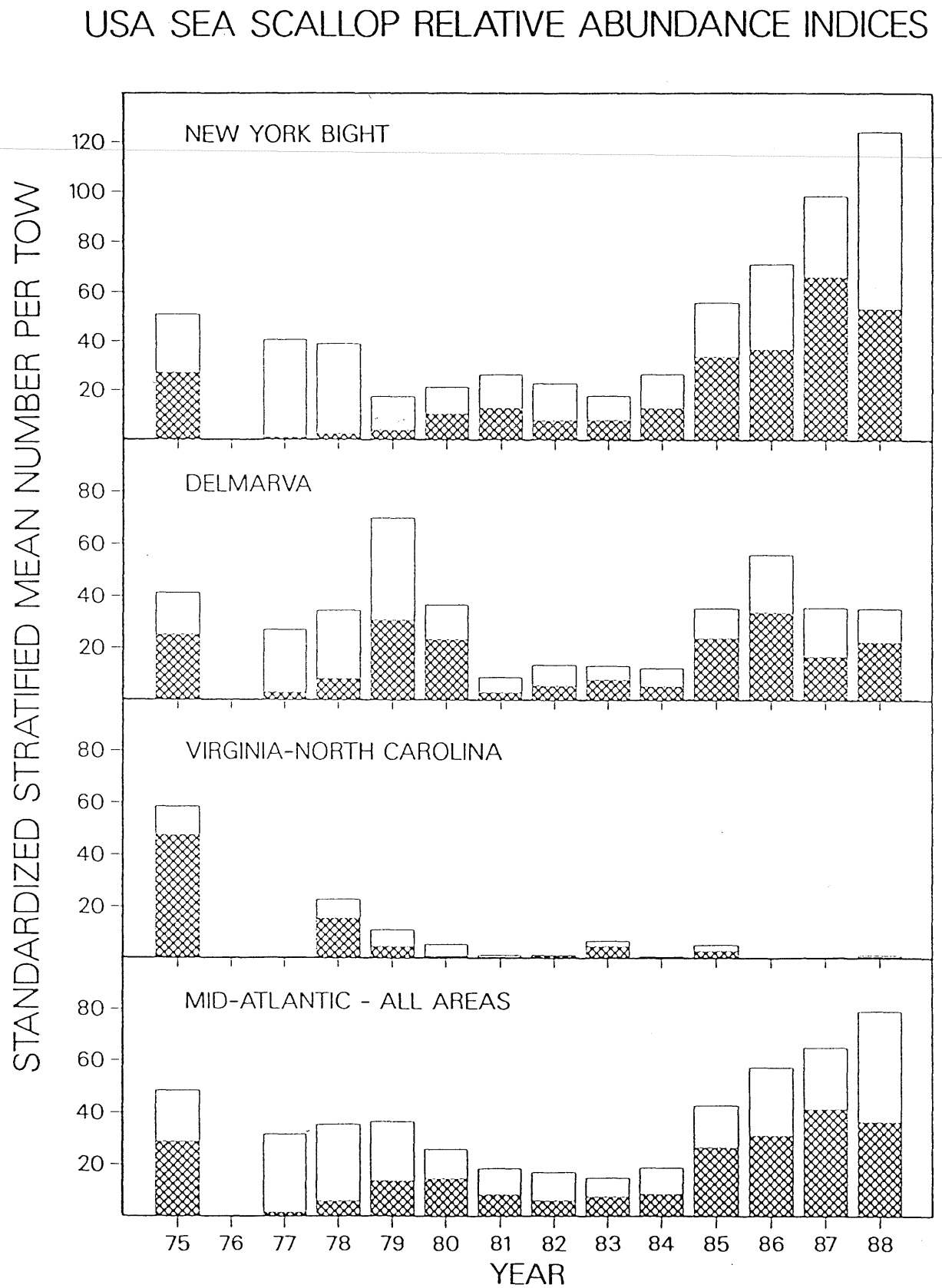

Figure 4. Relative abundance indices of sea scallops, by principal scallop region in the Mid-Atlantic, from USA sea scallop research vessel surveys in the Mid-Atlantic conducted during 1975 and 1977-1988. The shaded portion of each bar represents the relative abundance of pre-recruit scallops (<70 mm shell height); the upper, non-shaded portion of each bar represents the relative abundance of recruit or commercial-size scallops (>70 mm shell height).

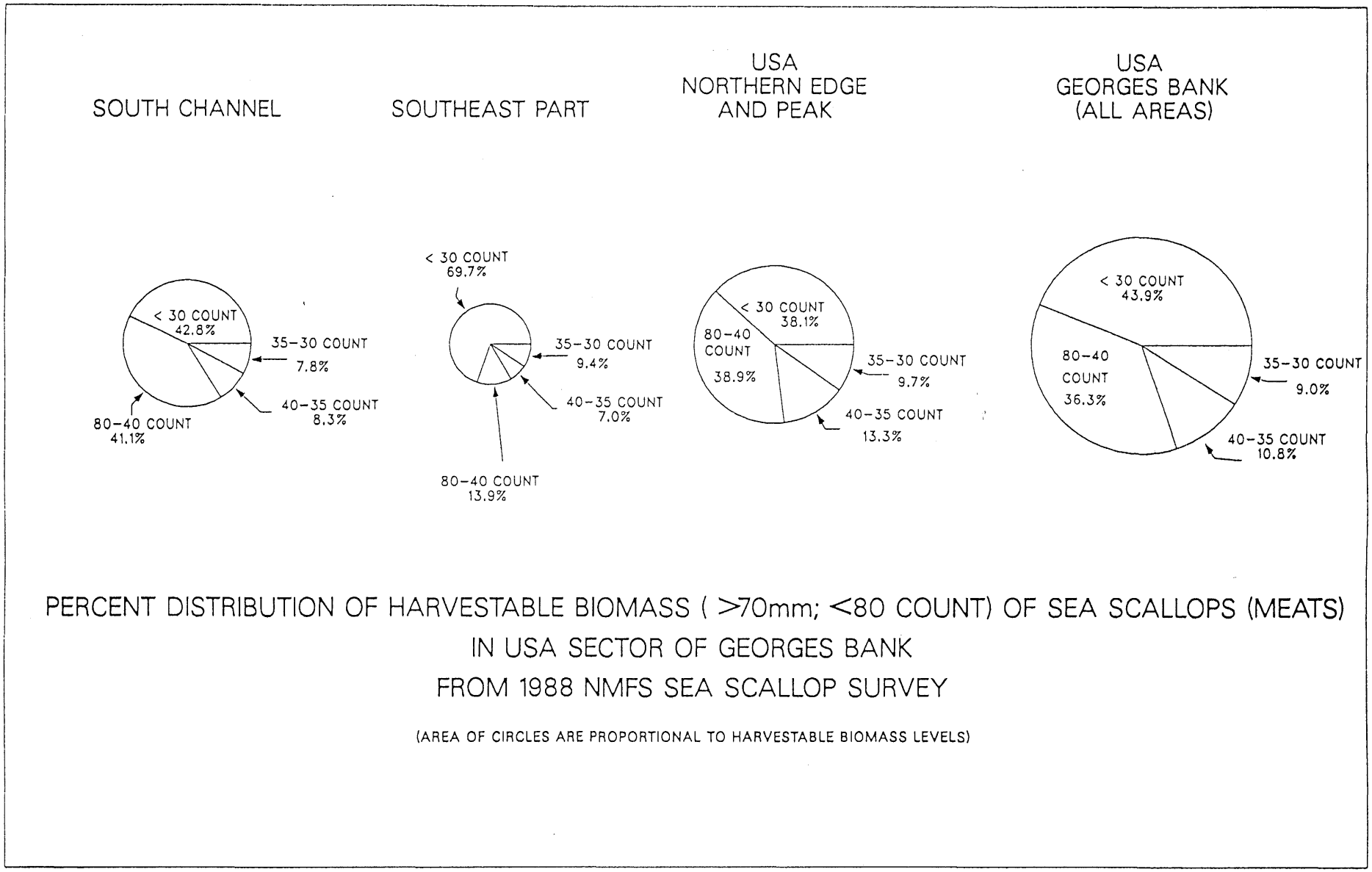

Figure 5. Percentage distribution of harvestable biomass (meat weight) of sea scallops, within various meat count intervals (number of meats per pound), from the 1988 USA sea scallop research vessel survey of the USA portion of Georges Bank. Harvestable biomass is defined as all sea scallops $\geq$ 70 mm shell height. Data derived from 1988 survey distributions of standardized stratified mean meat weight per tow.

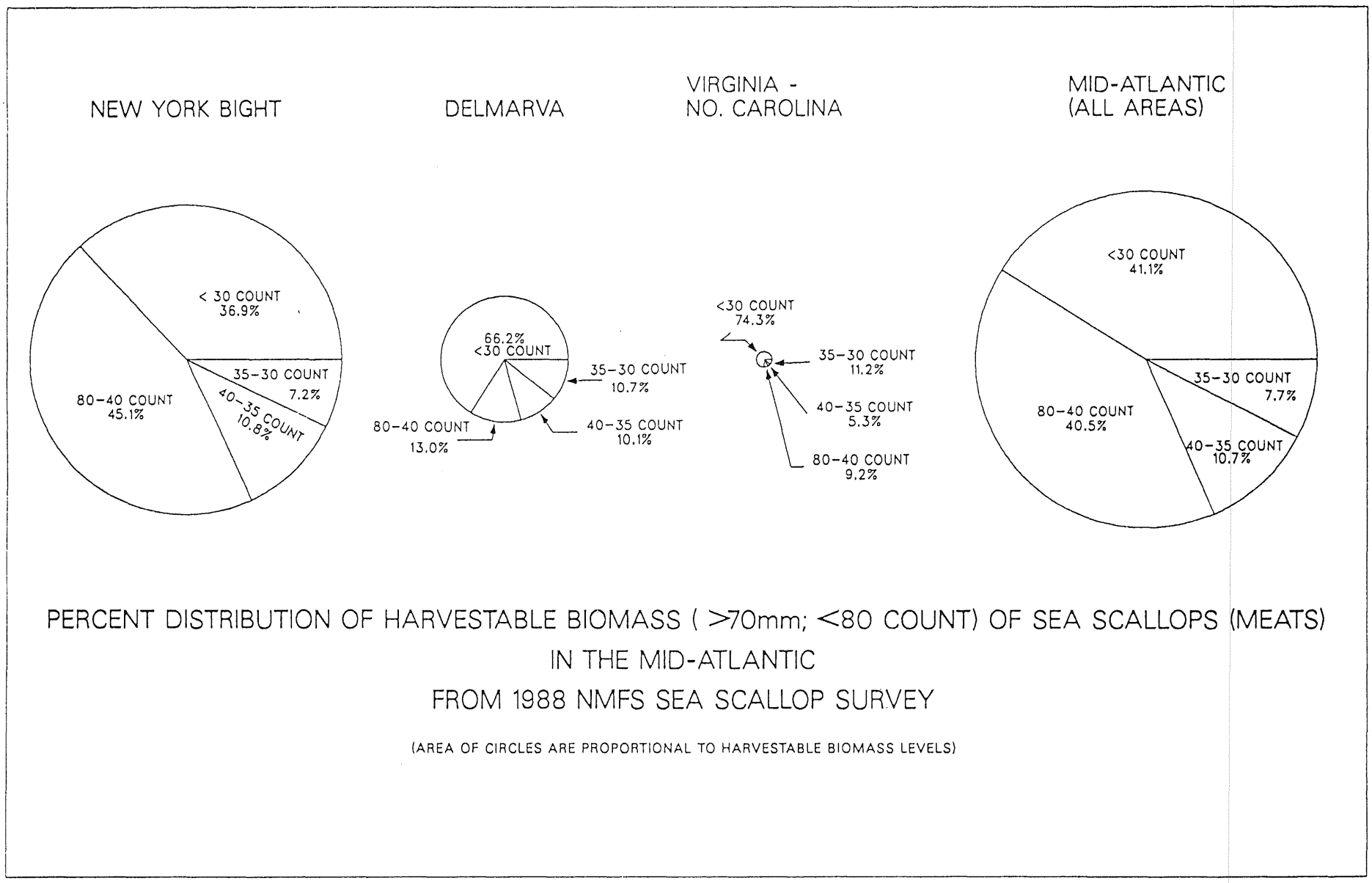

Figure 6. Percentage distribution of harvestable biomass (meat weight) of sea scallops, within various meat count intervals (number of meats per pound), from the 1988 USA sea scallop research vessel survey in the Mid-Atlantic region. Harvestable biomass is defined as all sea scallops $\geq$ 70 mm shell height. Data derived from 1988 survey distributions of standardized stratified mean meat weight per tow.

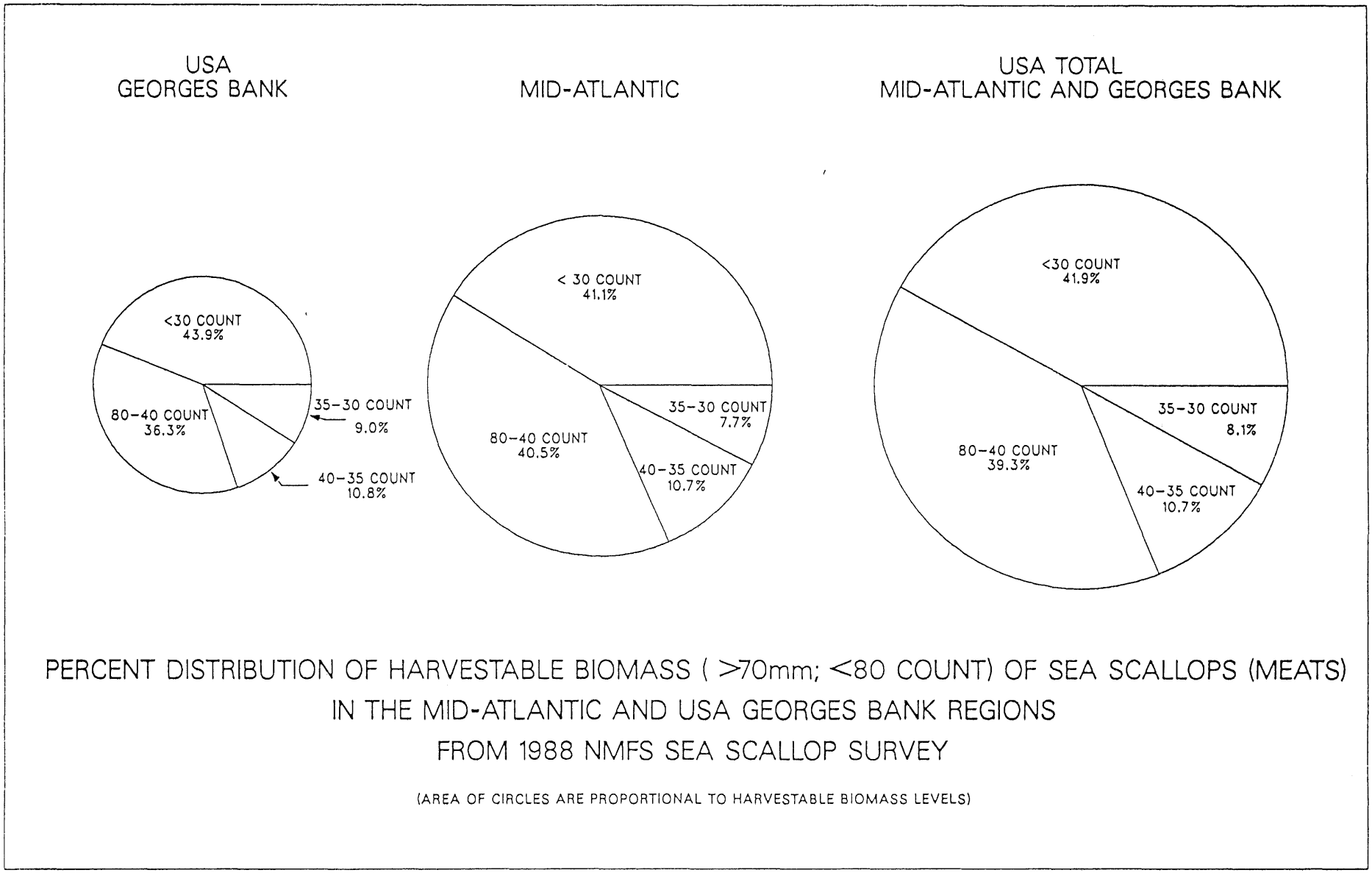

Figure 7. Percentage distribution of harvestable biomass (meat weight) of sea scallops, within various meat count intervals (number of meats per pound), from the 1988 USA sea scallop research vessel survey of the USA portion of Georges Bank and the Mid-Atlantic region. Harvestable biomass is defined as all sea scallops $\geq$ 70 mm shell height. Data derived from 1988 survey distributions of standardized stratified mean meat weight per tow.