

3.0 STATUS OF THE MOST RECENT FISHING YEAR: MARCH 1, 1999 TO FEBRUARY 29, 2000

3.1 Benchmark assessment

A benchmark assessment was conducted by SAW 29 using survey data through July 1998 and fishery data for the 1998 fishing year. A new benchmark assessment is planned for January 2000, which will at a minimum include the 2000 survey data and fishery data for the 1999 fishing year.

3.2 Success of the Closed Area II scallop fishery during 1999.

Access to Closed Area II for vessels fishing for scallops was highly successful and realized the benefits predicted by Framework Adjustment 11 (NEFMC 1999a). At the season's end, 187 out of a potential 328 vessels with limited access scallop permits made 644 out of a potential 965 trips into Closed Area II to catch large scallops. As anticipated by Framework 11, trips averaged six days-at-sea, ranging from one to twelve days (Figure 1). NMFS program to place observers on board scallop vessels in Closed Area II was highly successful and over 25 percent of the trips were observed.

During these trips, the vessels caught 6.0 million lbs. of scallops worth approximately \$36 million (Table 4), helping the port of New Bedford, MA rank second in the value of landed seafood. The scallop vessels also caught 912,000 lbs. of yellowtail flounder (Table 4). The ratio of yellowtail flounder to scallop catch was 0.15 lbs. of flounder for each pound of scallops, rising at the end of the season (Figure 5) due to seasonal and behavioral factors. This ratio is much lower than that predicted in Framework Adjustment 11, allowing the season to last longer than expected and allowing the allocation of three additional trips to 178 vessels that fished before the September 30, 1999 deadline to be eligible for a mid-season adjustment.

The mid-season adjustment appeared to have some unintended consequences, however. On October 12th, the NMFS Regional Office authorized these 178 vessels to make up to three additional trips to Closed Area II. After the announcement, fishing effort and yellowtail flounder bycatch shot up (Figure 5) and the fishery more rapidly approached the flounder TAC (Figure 3).

Ninety-five (95) vessels took advantage of the added opportunity in October and November 1999 (Table 5). Forty-seven (47) vessel made less than the three trips initially authorized by Framework Adjustment 11. In total, these vessels made 644 trips to Closed Area II and landed nearly 6.0 million lbs., about 9,300 lbs. of scallops per trip. Since each trip accumulated a minimum of 10 days, the trips in Closed Area II used up 6,440 days-at-sea, or about 20 percent of the total annual allocation of days-at-sea. Since the average trip length was about six days, the program used 2,576 days that were not actually fished. The actual amount of fishing effort that the Closed Area II fishery removed from the open areas is unknown; it depends on what vessels entered Closed Area II to fish and whether they took advantage of unused days to fish. A more comprehensive analysis of the effects is analyzed in this document (NEFMC 1999b) in Section 4.1.5.

Table 4. Total allowable catch and status of the Closed Area II fishery, June 15, 1999 to November 15, 1999. Source: NMFS– <http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

	Directed Scallop Fishery (meat weight)	Yellowtail Flounder Bycatch (live weight)
Total Allowable Catch (TAC)	9,384,812 lbs	853,165 lbs
	(4,257 mt)*	(387 mt)*
Total Catch to date	5,996,110	912,475
Percent of TAC	64%	107%

Table 5. Distribution of trips and vessel participation during the Closed Area II fishery from June 15, 1999 to November 15, 1999. Source: NMFS– <http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

	Trips	Number of Vessels
Number of Trips	1	24
	2	23
	3	51
	4	58
	5	30
	6	7
Total Number of Participating Vessels		187
Number of Scallop Fishing Trips		644

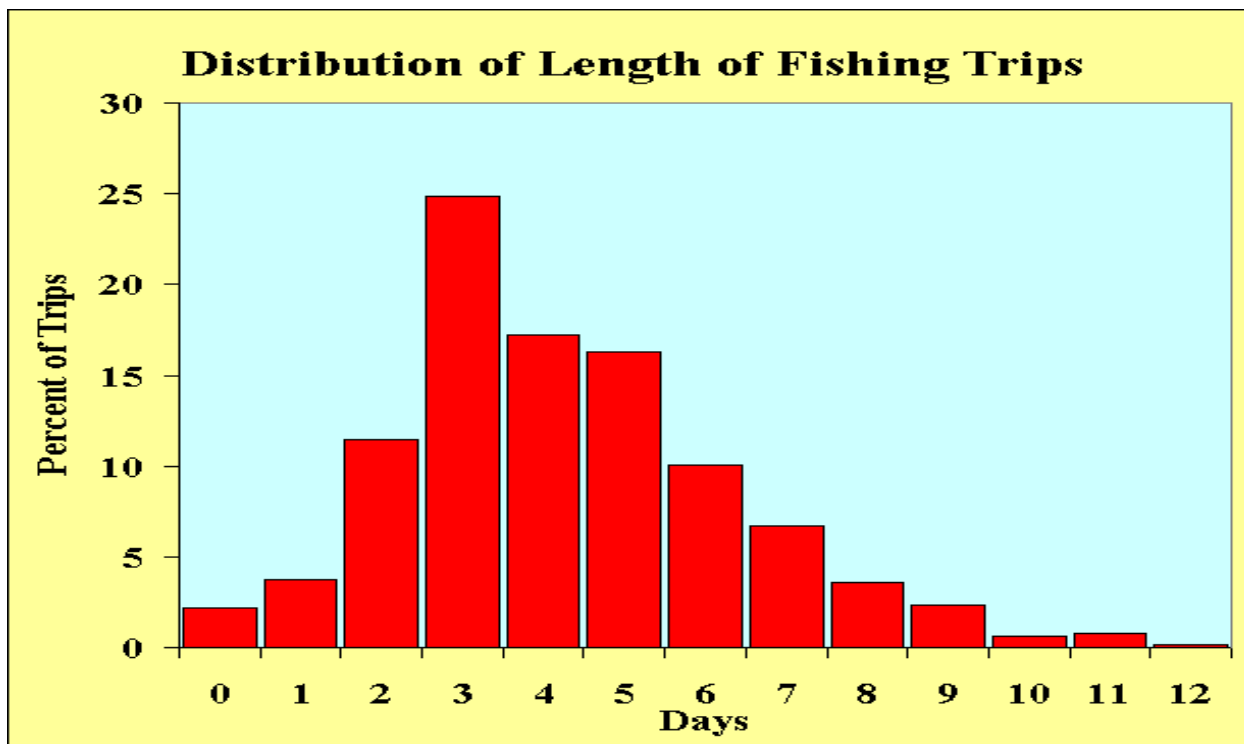


Figure 1. Trip length distribution for scallop fishing trips to Closed Area II, during June 15 to October 27, 1999. Source: NMFS – <http://www.nero.nmfs.gov/ro/doc/gb102799.htm>.

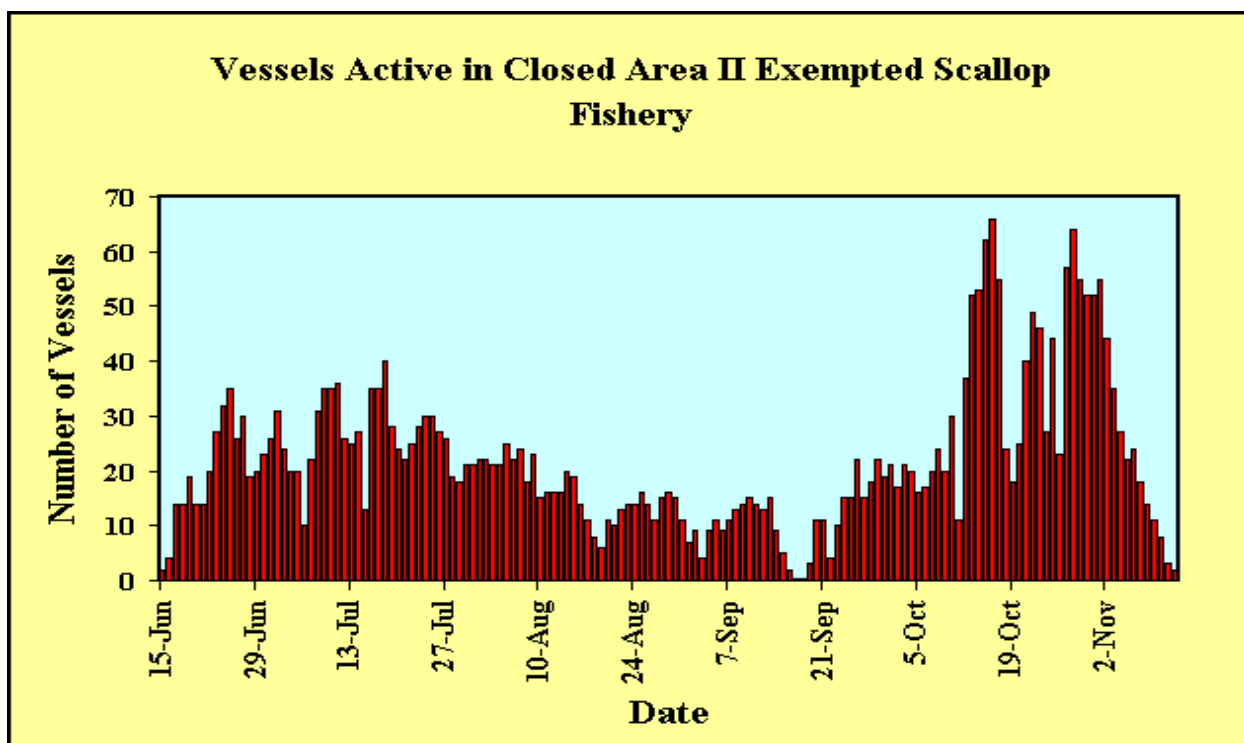


Figure 2. Daily vessel activity in Closed Area II from June 15 to October 27, 1999. Source: NMFS– <http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

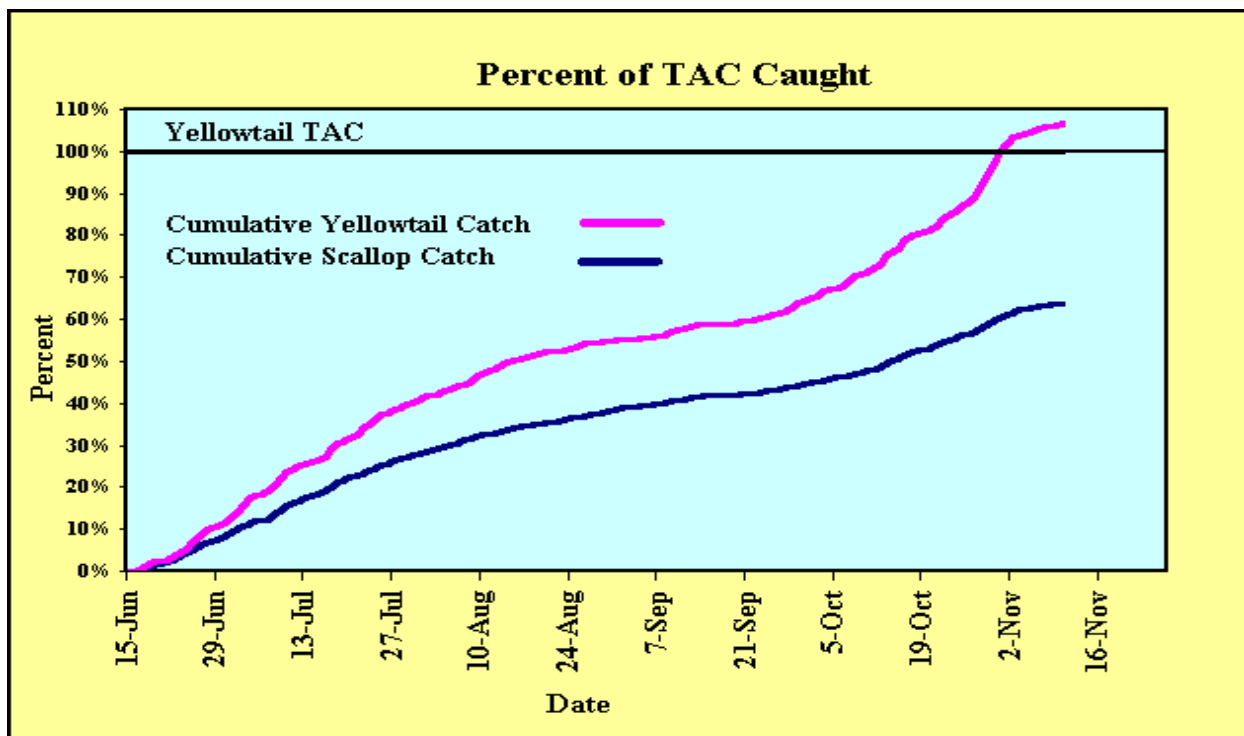


Figure 3. Proportion of scallop and yellowtail flounder TACs caught by vessels fishing in Closed Area II between June 15 to October 27, 1999. Source: NMFS—<http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

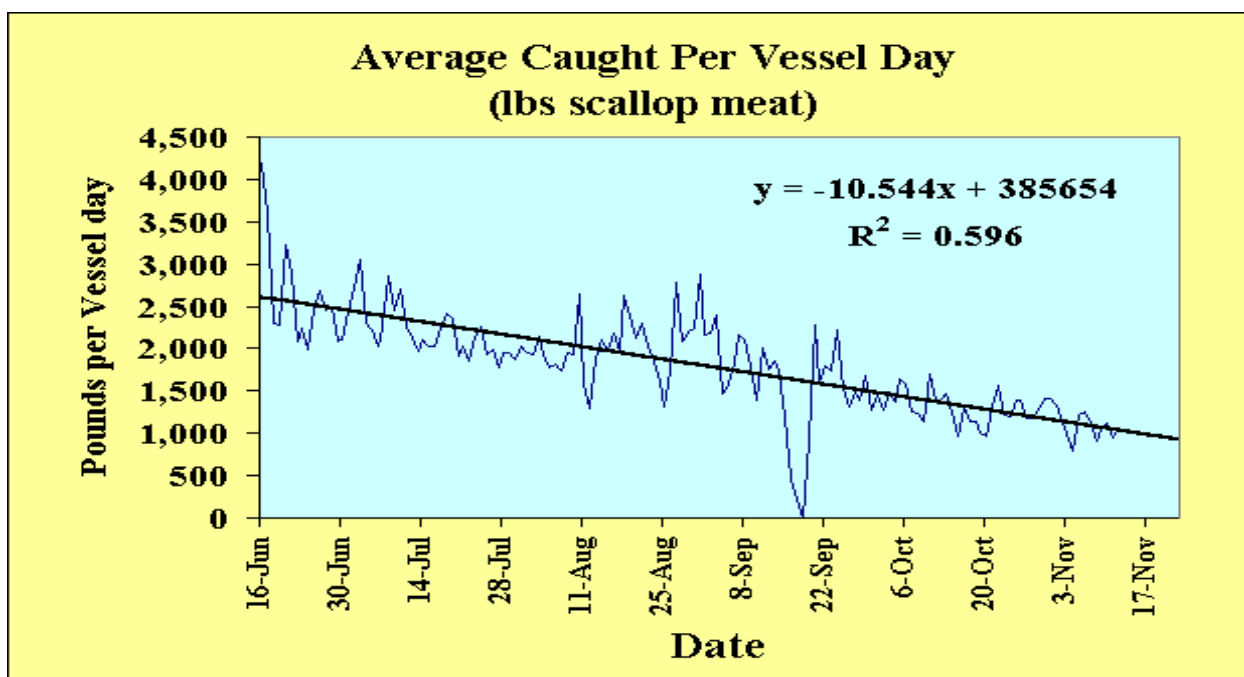


Figure 4. Trend in average scallop catch per vessel day in Closed Area II during 1999. Source: NMFS—<http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

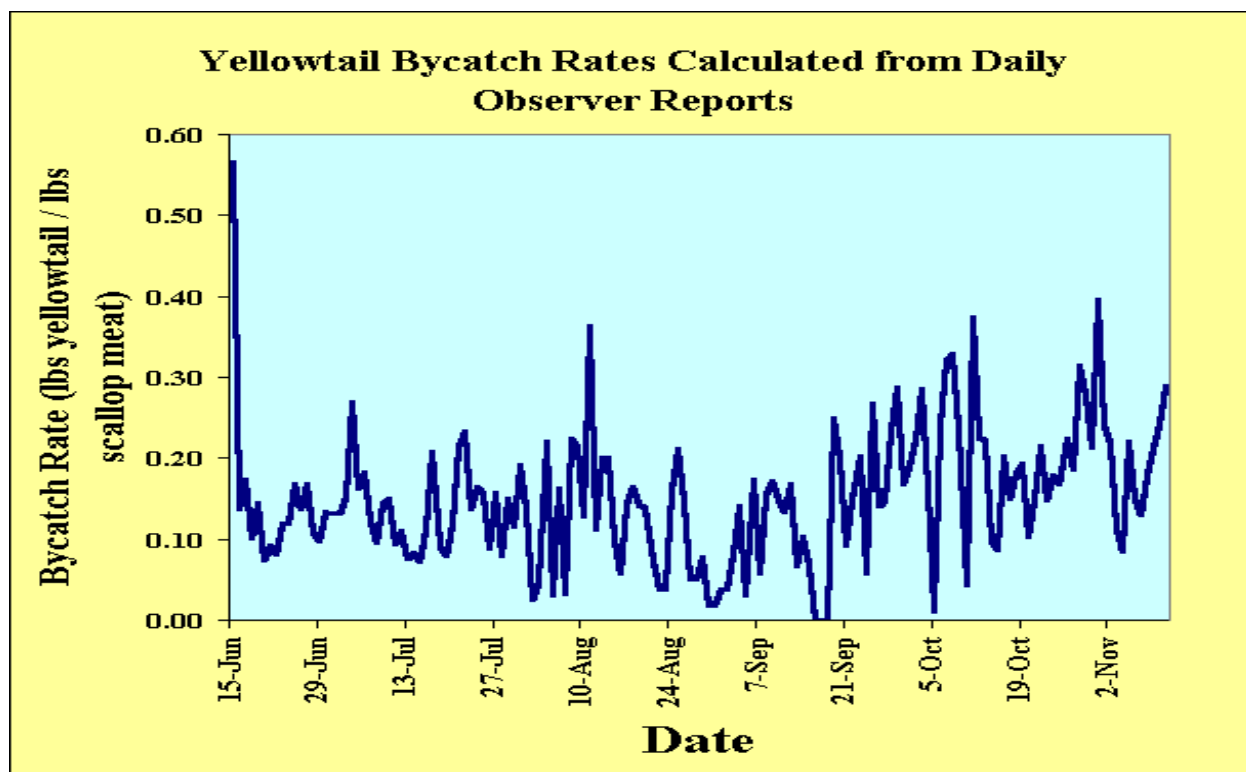


Figure 5. Trend in yellowtail bycatch per pound of scallop meats in Closed Area II during 1999. Source: NMFS— <http://www.nero.nmfs.gov/ro/fso/gb111599.htm>.

3.3 Effort and Landings Distribution Derived from Vessel Monitoring System Data

(P. Rago)

[To be added as an addendum.]

3.4 Economic Factors

(S. Wang)

3.4.1 Landings and Revenue by Vessels with Limited Access Scallop Permits

3.4.1.1 Proration of Landing Data

Scallop landing by stock area and gears are not readily available with proration of two data sources. Scallop landings for the 1999-2000 fishing year were collected under two mandatory reporting systems: vessel trip reporting (VTR) and dealer reporting systems. According to the reporting procedures, area fished (statistical area) is located in the VTR data and, at the present, cannot be directly linked to the dealer data. To derive landing data by stock area and gears, the scallop PDT used the Regional Office proration method in which species, port/port group, gear and stock area were taken from the VTR data. The method uses VTR data to prorate total scallop landing from the dealer data into

scallop landings by gear, port, state and stock area. For the proration, the basic stratification includes month, port/port group, gear and stock area.

Port designation in both data sets were grouped into the following groups:

- All Maine ports.
- All New Hampshire ports
- New Bedford (MA)
- All other Massachusetts ports
- All Rhode Island ports
- All Connecticut ports
- All New York ports
- Cape May (NJ)
- All other New Jersey ports
- Norfolk (VA)
- All other Virginia ports
- Other Northeastern ports (Delaware, Maryland and North Carolina).

The following gear groups were formed: Otter trawl, dredge and other gears. Resource areas were established based on the following statistical area groups:

- Gulf of Maine: 511-515
- South Channel: 521,522 and 526.
- Georges Bank North: 561, 562.
- Georges Bank South: 525.
- Southern New England: 537-539.
- New York Bight: 611-616.
- Delmarva: 621-623, 625-627.
- Virginia/North Carolina: 631-638.

3.4.1.2 Landings by Resource Area

During the 1999 fishing year from March 1999 through February 2000, a total of about 22.5 million pounds of sea scallops (meat weight) was produced and landed from eight resource areas (Table 6). Among the eight areas, three were major production areas that produced 16.7 million pounds (75%) of the total landing: Georges Bank North (29%), Delmarva (25%) and New York Bight (21%). For the other areas, each accounted for less than 17% of the total landing: South Channel (16%), Georges Bank South (5%), Gulf of Maine (3%), the VA/NC area (1%) and Southern New England (1%).

Generally, sea scallop landings were highly seasonal. For example, Georges Bank North Area produced about 90% of its annual landings in a 6-month period, June through November; New York Bight produced about 79% of its annual production in another 6-month period, March through August; and Delmarva, 82% from March through August

Scallop landing revenue by stock area is presented in Table 7. The total scallop landing revenue for the 1999 fishing year was about \$123.3 million. The majority of scallop revenue, like the scallop landing quantity, was drawn from the three leading resource areas with similar seasonal patterns as discussed above.

A further breakdown of landings by stock and gear are also available for scallop landings and

landing revenue as shown in Table 8 and Table 9.

Table 6. Sea scallop landings by month & stock area, March 1999 - February 2000

STOCK AREA		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
GULF OF MAINE	LBS	69,241	17,254	6,368	10,278	7,155	19,810	32,087	52,227	42,634	311,448	84,583	32,100	685,185	3%
	%	10%	3%	1%	2%	1%	3%	5%	8%	6%	45%	12%	5%	100%	
SOUTH CHANNEL	LBS	194,580	276,457	405,288	710,644	215,625	305,062	233,181	436,796	208,981	266,366	148,521	162,851	3,564,354	16%
	%	5%	8%	11%	20%	6%	9%	7%	12%	6%	7%	4%	5%	100%	
GEORGES BANK NORTH	LBS	40,828	214,590	48,421	701,405	1,798,604	985,086	407,084	1,249,518	678,954	169,820	53,461	91,751	6,439,523	29%
	%	1%	3%	1%	11%	28%	15%	6%	19%	11%	3%	1%	1%	100%	
GEORGES BANK SOUTH	LBS	18,186	96,871	205,277	343,601	50,006	97,075	31,455	52,454	64,813	184,910	15,295	3,203	1,163,145	5%
	%	2%	8%	18%	30%	4%	8%	3%	5%	6%	16%	1%	0%	100%	
SOUTHERN NEW ENGLAND	LBS	11,634	26,398	14,152	25,334	23,835	60,313	5,035	24,307	12,765	659	332	8,806	213,570	1%
	%	5%	12%	7%	12%	11%	28%	2%	11%	6%	0%	0%	4%	100%	
NEW YORK BIGHT	LBS	583,749	591,055	1,111,722	432,555	265,457	295,693	215,729	150,217	126,945	103,767	111,121	740,446	4,728,457	21%
	%	12%	12%	24%	9%	6%	6%	5%	3%	3%	2%	2%	16%	100%	
DELMARVA	LBS	564,794	794,607	972,374	1,017,562	691,054	590,583	171,219	227,965	263,847	153,523	31,023	91,409	5,569,961	25%
	%	10%	14%	17%	18%	12%	11%	3%	4%	5%	3%	1%	2%	100%	
VIRGINIA/NORTH CAROLINA	LBS	442	23,505	54,054	24,621	58,852	19,907	2,586	0	0	380	0	676	185,023	1%
	%	0%	13%	29%	13%	32%	11%	1%	0%	0%	0%	0%	0%	100%	
ALL AREAS	LBS	1,483,454	2,040,738	2,817,656	3,266,000	3,110,589	2,373,529	1,098,375	2,193,485	1,398,939	1,190,874	444,335	1,131,243	22,549,217	100%
	%	7%	9%	12%	14%	14%	11%	5%	10%	6%	5%	2%	5%	100%	

Table 7. Sea scallop revenue by month & stock area, March 1999 - February 2000.

STOCK AREA		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
GULF OF MAINE		\$387,327	\$87,583	\$30,218	\$48,602	\$37,191	\$113,377	\$207,114	\$338,211	\$267,694	\$1,942,298	\$511,710	\$167,150	4,138,475	3%
	%	9%	2%	1%	1%	1%	3%	5%	8%	6%	47%	12%	4%	100%	
SOUTH CHANNEL		\$1,088,454	\$1,403,290	\$1,923,322	\$3,360,474	\$1,120,763	\$1,745,975	\$1,505,144	\$2,828,620	\$1,312,164	\$1,661,154	\$898,518	\$848,003	19,695,881	16%
	%	6%	7%	10%	17%	6%	9%	8%	14%	7%	8%	5%	4%	100%	
GEORGES BANK NORTH		\$228,384	\$1,089,252	\$229,787	\$3,316,787	\$9,348,669	\$5,637,998	\$2,627,657	\$8,091,674	\$4,263,053	\$1,059,054	\$323,426	\$477,770	36,693,511	30%
	%	1%	3%	1%	9%	25%	15%	7%	22%	12%	3%	1%	1%	100%	
GEORGES BANK SOUTH		\$101,729	\$491,714	\$974,157	\$1,624,812	\$259,919	\$555,592	\$203,036	\$339,686	\$406,948	\$1,153,160	\$92,530	\$16,678	6,219,961	5%
	%	2%	8%	16%	26%	4%	9%	3%	5%	7%	19%	1%	0%	100%	
SOUTHERN NEW ENGLAND		\$65,082	\$133,993	\$67,157	\$119,801	\$123,887	\$345,194	\$32,497	\$157,408	\$80,147	\$4,112	\$2,010	\$45,857	1,177,146	1%
	%	6%	11%	6%	10%	11%	29%	3%	13%	7%	0%	0%	4%	100%	
NEW YORK BIGHT		\$3,265,410	\$3,000,179	\$5,275,752	\$2,045,456	\$1,379,777	\$1,692,358	\$1,392,491	\$972,782	\$797,069	\$647,128	\$672,256	\$3,855,676	24,996,333	20%
	%	13%	12%	21%	8%	6%	7%	6%	4%	3%	3%	3%	15%	100%	
DELMARVA		\$3,159,376	\$4,033,403	\$4,614,467	\$4,811,819	\$3,591,917	\$3,380,118	\$1,105,187	\$1,476,264	\$1,656,657	\$957,426	\$187,683	\$475,990	29,450,306	24%
	%	11%	14%	16%	16%	12%	11%	4%	5%	6%	3%	1%	2%	100%	
VIRGINIA/NORTH CAROLINA		\$2,470	\$119,311	\$256,519	\$116,426	\$305,899	\$113,934	\$16,690	\$0	\$0	\$2,372	\$0	\$3,520	937,140	1%
	%	0%	13%	27%	12%	33%	12%	2%	0%	0%	0%	0%	0%	100%	
ALL AREAS		\$8,298,232	\$10,358,724	\$13,371,378	\$15,444,177	\$16,168,022	\$13,584,546	\$7,089,816	\$14,204,645	\$8,783,732	\$7,426,704	\$2,688,133	\$5,890,644	123,308,753	100%
	%	7%	8%	11%	13%	13%	11%	6%	12%	7%	6%	2%	5%	100%	

Table 8. Sea scallop landings (lbs of meat) prorated by stock area, March 1999 - February 2000. 2000 data is preliminary.

STOCK AREA	MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL
GULF OF MAINE	69,241	17,254	6,368	10,278	7,155	19,810	32,087	52,227	42,634	311,448	84,583	32,100	685,185
OTTER TRAWL	562	269	139	41	38	47	470	18,447	342	4,876	715	72	26,019
DREDGE	68,633	15,538	5,782	10,190	7,032	19,763	31,617	33,780	42,238	305,662	79,922	31,832	651,989
OTHER GEAR	47	1,447	446	46	85	0	0	0	54	910	3,946	196	7,177
SOUTH CHANNEL	194,580	276,457	405,288	710,644	215,625	305,062	233,181	436,796	208,981	266,366	148,521	162,851	3,564,354
OTTER TRAWL	0	143	548	5,395	459	365	555	300	282	0	144	701	8,893
DREDGE	194,580	276,314	404,740	705,248	215,167	304,696	232,626	425,175	208,699	266,366	115,607	162,150	3,511,371
OTHER GEAR	0	0	0	0	0	0	0	11,320	0	0	32,770	0	44,090
GEORGES BANK NORTH	40,828	214,590	48,421	701,405	1,798,604	985,086	407,084	1,249,518	678,954	169,820	53,461	91,751	6,439,523
OTTER TRAWL	23	0	47	86	0	10,994	20	9,861	64	1,515	1,009	1,431	25,049
DREDGE	40,805	214,590	48,375	677,471	1,766,019	974,093	385,600	1,228,326	678,890	168,304	52,452	90,182	6,325,106
OTHER GEAR	0	0	0	23,848	32,585	0	21,465	11,332	0	0	0	138	89,368
GEORGES BANK SOUTH	18,186	96,871	205,277	343,601	50,006	97,075	31,455	52,454	64,813	184,910	15,295	3,203	1,163,145
OTTER TRAWL	653	31	0	0	0	0	0	816	23	232	482	2,685	4,922
DREDGE	17,533	96,840	205,277	321,584	50,006	97,075	31,455	51,638	64,790	184,677	14,756	0	1,135,630
OTHER GEAR	0	0	0	22,017	0	0	0	0	0	0	57	518	22,592
SOUTHERN NEW ENGLAND	11,634	26,398	14,152	25,334	23,835	60,313	5,035	24,307	12,765	659	332	8,806	213,570
OTTER TRAWL	10,138	14,533	14,152	14,911	21,181	32,371	0	9,308	12,765	7	0	8,602	137,966
DREDGE	1,497	11,864	0	10,423	2,654	27,179	5,010	14,997	0	653	332	204	74,815
OTHER GEAR	0	0	0	0	0	763	24	2	0	0	0	0	789
NEW YORK BIGHT	583,749	591,055	1,111,722	432,555	265,457	295,693	215,729	150,217	126,945	103,767	111,121	740,446	4,728,457
OTTER TRAWL	2,181	266	294	2,438	215	28,627	1,944	1,841	2,290	1,768	495	234	42,592
DREDGE	581,568	590,789	1,111,428	430,117	265,242	267,066	213,784	148,372	124,610	101,992	89,658	714,261	4,638,887
OTHER GEAR	0	0	0	0	0	0	2	5	44	8	20,968	25,952	46,978
DELMARVA	564,794	794,607	972,374	1,017,562	691,054	590,583	171,219	227,965	263,847	153,523	31,023	91,409	5,569,961
OTTER TRAWL	71,759	234,226	257,263	411,163	334,904	225,231	87,661	146,447	194,396	29,530	844	27,315	2,020,740
DREDGE	493,034	560,381	700,452	594,486	350,579	361,758	83,557	81,435	69,451	123,994	30,017	50,092	3,499,235
OTHER GEAR	0	0	14,659	11,913	5,572	3,594	0	84	0	0	162	14,002	49,986
VIRGINIA/NORTH CAROLINA	442	23,505	54,054	24,621	58,852	19,907	2,586	0	0	380	0	676	185,023
OTTER TRAWL	0	4	0	0	0	0	0	0	0	380	0	378	763
DREDGE	442	23,501	54,054	24,621	58,852	19,907	2,586	0	0	0	0	298	184,260
OTHER GEAR	0	0	0	0	0	0	0	0	0	0	0	0	0
ALL AREAS	1,483,454	2,040,738	2,817,656	3,266,000	3,110,589	2,373,529	1,098,375	2,193,485	1,398,939	1,190,874	444,335	1,131,243	22,549,217
OTTER TRAWL	85,316	249,473	272,442	434,035	356,796	297,635	90,650	187,020	210,162	38,309	3,688	41,418	2,266,943
DREDGE	1,398,091	1,789,818	2,530,109	2,774,141	2,715,551	2,071,537	986,234	1,983,722	1,188,678	1,151,648	382,745	1,049,018	20,021,293
OTHER GEAR	47	1,447	15,105	57,824	38,242	4,357	21,490	22,743	99	917	57,903	40,807	260,981

Table 9. Sea scallop revenue by stock area, March 1999 - February 2000. 2000 data is preliminary.

STOCK AREA	MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL
GULF OF MAINE	\$387,327	\$87,583	\$30,218	\$48,602	\$37,191	\$113,377	\$207,114	\$338,211	\$267,694	\$1,942,298	\$511,710	\$167,150	4,138,475
OTTER TRAWL	\$3,143	\$1,367	\$660	\$196	\$197	\$266	\$3,035	\$119,460	\$2,147	\$30,411	\$4,324	\$376	165,582
DREDGE	\$383,923	\$78,871	\$27,440	\$48,188	\$36,551	\$113,110	\$204,079	\$218,752	\$265,206	\$1,906,214	\$483,514	\$165,756	3,931,604
OTHER GEAR	\$262	\$7,345	\$2,117	\$219	\$442	\$0	\$0	\$0	\$341	\$5,673	\$23,872	\$1,018	41,289
SOUTH CHANNEL	\$1,088,454	\$1,403,290	\$1,923,322	\$3,360,474	\$1,120,763	\$1,745,975	\$1,505,144	\$2,828,620	\$1,312,164	\$1,661,154	\$898,518	\$848,003	19,695,881
OTTER TRAWL	\$0	\$727	\$2,599	\$25,514	\$2,383	\$2,091	\$3,585	\$1,946	\$1,771	\$0	\$870	\$3,649	45,135
DREDGE	\$1,088,454	\$1,402,563	\$1,920,723	\$3,334,960	\$1,118,380	\$1,743,884	\$1,501,560	\$2,753,366	\$1,310,393	\$1,661,154	\$699,399	\$844,353	19,379,189
OTHER GEAR	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$73,309	\$0	\$0	\$198,249	\$0	271,558
GEORGES BANK NORTH	\$228,384	\$1,089,252	\$229,787	\$3,316,787	\$9,348,669	\$5,637,998	\$2,627,657	\$8,091,674	\$4,263,053	\$1,059,054	\$323,426	\$477,770	36,693,511
OTTER TRAWL	\$129	\$0	\$221	\$408	\$0	\$62,921	\$129	\$63,856	\$401	\$9,451	\$6,102	\$7,452	151,070
DREDGE	\$228,255	\$1,089,252	\$229,565	\$3,203,608	\$9,179,302	\$5,575,076	\$2,488,977	\$7,954,434	\$4,262,653	\$1,049,603	\$317,324	\$469,599	36,047,648
OTHER GEAR	\$0	\$0	\$0	\$112,772	\$169,367	\$0	\$138,550	\$73,384	\$0	\$0	\$0	\$720	494,793
GEORGES BANK SOUTH	\$101,729	\$491,714	\$974,157	\$1,624,812	\$259,919	\$555,592	\$203,036	\$339,686	\$406,948	\$1,153,160	\$92,530	\$16,678	6,219,961
OTTER TRAWL	\$3,654	\$158	\$0	\$0	\$0	\$0	\$0	\$5,285	\$144	\$1,448	\$2,916	\$13,979	27,585
DREDGE	\$98,074	\$491,556	\$974,157	\$1,520,697	\$259,919	\$555,592	\$203,036	\$334,401	\$406,804	\$1,151,712	\$89,270	\$0	6,085,219
OTHER GEAR	\$0	\$0	\$0	\$104,115	\$0	\$0	\$0	\$0	\$0	\$0	\$343	\$2,699	107,157
SOUTHERN NEW ENGLAND	\$65,082	\$133,993	\$67,157	\$119,801	\$123,887	\$345,194	\$32,497	\$157,408	\$80,147	\$4,112	\$2,010	\$45,857	1,177,146
OTTER TRAWL	\$56,710	\$73,769	\$67,157	\$70,511	\$110,091	\$185,271	\$0	\$60,277	\$80,147	\$41	\$0	\$44,792	748,768
DREDGE	\$8,371	\$60,224	\$0	\$49,290	\$13,796	\$155,556	\$32,340	\$97,118	\$0	\$4,071	\$2,010	\$1,065	423,841
OTHER GEAR	\$0	\$0	\$0	\$0	\$0	\$4,367	\$157	\$13	\$0	\$0	\$0	\$0	4,537
NEW YORK BIGHT	\$3,265,410	\$3,000,179	\$5,275,752	\$2,045,456	\$1,379,777	\$1,692,358	\$1,392,491	\$972,782	\$797,069	\$647,128	\$672,256	\$3,855,676	24,996,333
OTTER TRAWL	\$12,200	\$1,350	\$1,395	\$11,529	\$1,117	\$163,844	\$12,545	\$11,919	\$14,381	\$11,024	\$2,996	\$1,216	245,516
DREDGE	\$3,253,210	\$2,998,829	\$5,274,357	\$2,033,927	\$1,378,659	\$1,528,515	\$1,379,936	\$960,831	\$782,409	\$636,056	\$542,410	\$3,719,321	24,488,459
OTHER GEAR	\$0	\$0	\$0	\$0	\$0	\$0	\$10	\$32	\$279	\$48	\$126,850	\$135,139	262,358
DELMARVA	\$3,159,376	\$4,033,403	\$4,614,467	\$4,811,819	\$3,591,917	\$3,380,118	\$1,105,187	\$1,476,264	\$1,656,657	\$957,426	\$187,683	\$475,990	29,450,306
OTTER TRAWL	\$401,411	\$1,188,926	\$1,220,860	\$1,944,295	\$1,740,740	\$1,289,078	\$565,838	\$948,365	\$1,220,587	\$184,159	\$5,104	\$142,236	10,851,600
DREDGE	\$2,757,965	\$2,844,477	\$3,324,044	\$2,811,191	\$1,822,215	\$2,070,468	\$539,349	\$527,357	\$436,070	\$773,267	\$181,595	\$260,840	18,348,839
OTHER GEAR	\$0	\$0	\$69,564	\$56,332	\$28,962	\$20,572	\$0	\$541	\$0	\$0	\$983	\$72,914	249,867
VIRGINIA/N. CAROLINA	\$2,470	\$119,311	\$256,519	\$116,426	\$305,899	\$113,934	\$16,690	\$0	\$0	\$2,372	\$0	\$3,520	937,140
OTTER TRAWL	\$0	\$19	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,372	\$0	\$1,970	4,362
DREDGE	\$2,470	\$119,292	\$256,519	\$116,426	\$305,899	\$113,934	\$16,690	\$0	\$0	\$0	\$0	\$1,550	932,779
OTHER GEAR	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
ALL AREAS	\$8,298,232	\$10,358,724	\$13,371,378	\$15,444,177	\$16,168,022	\$13,584,546	\$7,089,816	\$14,204,645	\$8,783,732	\$7,426,704	\$2,688,133	\$5,890,644	\$123,308,753
OTTER TRAWL	\$477,247	\$1,266,317	\$1,292,893	\$2,052,452	\$1,854,530	\$1,703,471	\$585,132	\$1,211,108	\$1,319,577	\$238,907	\$22,312	\$215,671	12,239,617
DREDGE	\$7,820,723	\$9,085,063	\$12,006,804	\$13,118,288	\$14,114,721	\$11,856,136	\$6,365,966	\$12,846,258	\$7,463,535	\$7,182,076	\$2,315,523	\$5,462,483	109,637,576
OTHER GEAR	\$262	\$7,345	\$71,681	\$273,437	\$198,771	\$24,939	\$138,717	\$147,279	\$620	\$5,721	\$350,298	\$212,490	1,431,560

3.4.1.3 Landings by Gear

Dredge gears were predominately used to fish for sea scallops, followed by otter trawl gears and other gears. During the 1999 fishing year, dredge gears caught and landed about 20.0 million pounds of scallop meat, accounting for 89% of the total landing and the otter trawl and other gears landed the remaining 11% (10% for otter trawl and 1% for the other gears; Table 10). As the major gear sector, the dredge gear sector concentrated its landings during May through October and produced 66% of its annual landings in 1999/2000.

Scallop revenue by gear is presented in Table 11. Like the landing quantity by gear, the landing revenue followed a similar pattern as discussed above.

3.4.1.4 Landings by Major Port

Three major sea scallop ports were identified as New Bedford (MA), Cape May (NJ) and Norfolk (VA) and together they landed about 19.8 million pounds, accounting for 88% of the total scallop landing in the 1999/2000 fishing year: New Bedford, 12.4 million pounds (55%); Norfolk, 5.5 million pounds (24%); and Cape May, 2.0 million pounds (9%) as shown in Table 12. The majority of the scallop landing in the major ports was seasonally concentrated: 67% of the New Bedford annual landings from May through October, 73% of the Cape May annual landings from March through August and 86% of the Norfolk annual landings from March through August (Table 12).

Scallop revenue by port is summarized in Table 13. Like the landing quantity by port, the revenue by port reveals similar patterns as discussed above.

3.4.1.5 Landings by State

Among the states along the Atlantic coast from Maine to North Carolina, three states (Massachusetts, New Jersey, and Virginia) were the leading scallop producing states in the fishing year, landing a total of about 20.9 million pounds of scallops, accounting for 92% of the total fishing year landing (Table 14): Massachusetts landed 12.5 million pounds (55%); New Jersey, 3.0 million pounds (13%); and Virginia, 5.5 million pounds (24%). The balance of the remaining 8% was landed outside the three states in the Northeast region including North Carolina.

In terms of seasons, New Jersey and Virginia among three leading states produced a majority of the landing in the March-August season and Massachusetts, in the May-October season. The seasonal landings accounted for 70% of New Jersey annual scallop landings in the 1999/2000 fishing year; 86% of Virginia annual landings; and 67% of Massachusetts annual landings.

Scallop revenue by state is presented in Table 15. Like the landing quantity by the three major states, the revenue by the major states shows a similar pattern as discussed above.

Table 10. Sea scallop landings (lbs. of meats) by month & gear, March 1999 - February 2000

GEAR		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	LANDINGS	PERCENT
OTTER TRAWL	LBS	85,316	249,473	272,442	434,035	356,796	297,635	90,650	187,020	210,162	38,309	3,688	41,418	2,266,943	10%
	PERCENT	4%	11%	12%	19%	16%	13%	4%	8%	9%	2%	0%	2%	100%	
DREDGE	LBS	1,398,091	1,789,818	2,530,109	2,774,141	2,715,551	2,071,537	986,234	1,983,722	1,188,678	1,151,648	382,745	1,049,018	20,021,293	89%
	PERCENT	7%	9%	13%	14%	14%	10%	5%	10%	6%	6%	2%	5%	100	
OTHER GEAR	LBS	47	1,447	15,105	57,824	38,242	4,357	21,490	22,743	99	917	57,903	40,807	260,981	1%
	PERCENT	0%	1%	6%	22%	15%	2%	8%	9%	0%	0%	22%	16%	100%	
ALL AREAS	LBS	1,483,454	2,040,738	2,817,656	3,266,000	3,110,589	2,373,529	1,098,375	2,193,485	1,398,939	1,190,874	444,335	1,131,243	22,549,217	100%
	PERCENT	7%	9%	12%	14%	14%	11%	5%	10%	6%	5%	2%	5%	100%	

Table 11. Sea scallop revenue by month & gear, March 1999 - February 2000

GEAR		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
OTTER TRAWL		\$477,247	\$1,266,317	\$1,292,893	\$2,052,452	\$1,854,530	\$1,703,471	\$585,132	\$1,211,108	\$1,319,577	\$238,907	\$22,312	\$215,671	\$12,239,617	10%
	%	4%	10%	11%	17%	15%	14%	5%	10%	11%	2%	0%	2%	100%	
DREDGE		\$7,820,723	\$9,085,063	\$12,006,804	\$13,118,288	\$14,114,721	\$11,856,136	\$6,365,966	\$12,846,258	\$7,463,535	\$7,182,076	\$2,315,523	\$5,462,483	\$109,637,576	89%
	%	7%	8%	11%	12%	13%	11%	6%	12%	7%	7%	2%	5%	100%	
OTHER GEAR		\$262	\$7,345	\$71,681	\$273,437	\$198,771	\$24,939	\$138,717	\$147,279	\$620	\$5,721	\$350,298	\$212,490	\$1,431,560	1%
	%	0%	1%	5%	19%	14%	2%	10%	10%	0%	0%	24%	15%	100%	
ALL AREAS		\$8,298,232	\$10,358,724	\$13,371,378	\$15,444,177	\$16,168,022	\$13,584,546	\$7,089,816	\$14,204,645	\$8,783,732	\$7,426,704	\$2,688,133	\$5,890,644	\$123,308,753	100%
	%	7%	8%	11%	13%	13%	11%	6%	12%	7%	6%	2%	5%	100%	

Table 12. Sea scallop landings (lbs. of meats) by month & major port, March 1999 - February 2000

PORT		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
NEW BEDFORD, MA	LBS	596,136	929,053	1,270,909	1,641,284	1,810,563	1,272,179	649,603	1,690,507	950,454	680,792	255,759	630,564	12,377,803	55%
	%	5%	8%	10%	13%	15%	10%	5%	14%	8%	6%	2%	5%	100%	
CAPE MAY, NJ	LBS	145,583	277,282	360,587	291,755	161,199	210,737	112,762	137,582	102,241	57,930	6,397	100,906	1,964,961	9%
	%	7%	14%	18%	15%	8%	11%	6%	7%	5%	3%	0%	5%	100%	
NORFOLK, VA	LBS	478,911	679,142	956,275	1,015,781	865,830	661,711	171,118	152,710	210,064	120,353	30,800	105,127	5,447,822	24%
	%	9%	12%	18%	19%	16%	12%	3%	3%	4%	2%	1%	2%	100%	
OTHER PORTS	LBS	262,824	155,261	229,885	317,180	272,997	228,902	164,892	212,686	136,180	331,799	151,379	294,646	2,758,631	12%
	%	10%	6%	8%	11%	10%	8%	6%	8%	5%	12%	5%	11%	100%	
TOTAL	LBS	1,483,454	2,040,738	2,817,656	3,266,000	3,110,589	2,373,529	1,098,375	2,193,485	1,398,939	1,190,874	444,335	1,131,243	22,549,217	100%
	%	7%	9%	12%	14%	14%	11%	5%	10%	6%	5%	2%	5%	100%	

Table 13. Sea scallop revenue by month & major port, March 1999 - February 2000

PORT		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
NEW BEDFORD MA		\$3,334,701	\$4,715,845	\$6,031,185	\$7,761,262	\$9,410,829	\$7,281,130	\$4,193,072	\$10,947,443	\$5,967,761	\$4,245,655	\$1,547,287	\$3,283,493	\$68,719,663	56%
	%	5%	7%	9%	11%	14%	11%	6%	16%	9%	6%	2%	5%	100%	
CAPE MAY, NJ		\$814,371	\$1,407,475	\$1,711,190	\$1,379,644	\$837,870	\$1,206,122	\$727,859	\$890,958	\$641,956	\$361,272	\$38,700	\$525,441	\$10,542,858	9%
	%	8%	13%	16%	13%	8%	11%	7%	8%	6%	3%	0%	5%	100%	
NORFOLK, VA		\$2,678,960	\$3,447,304	\$4,538,068	\$4,803,399	\$4,500,356	\$3,787,206	\$1,104,536	\$988,925	\$1,318,961	\$750,563	\$186,333	\$547,421	\$28,652,033	23%
	%	9%	12%	16%	17%	16%	13%	4%	3%	5%	3%	1%	2%	100%	
OTHER PORTS		\$1,470,200	\$788,100	\$1,090,935	\$1,499,873	\$1,418,966	\$1,310,087	\$1,064,349	\$1,377,319	\$855,054	\$2,069,214	\$915,813	\$1,534,289	\$15,394,199	12%
	%	10%	5%	7%	10%	9%	9%	7%	9%	6%	13%	6%	10%	100%	
TOTAL		\$8,298,232	\$10,358,724	\$13,371,378	\$15,444,177	\$16,168,022	\$13,584,546	\$7,089,816	\$14,204,645	\$8,783,732	\$7,426,704	\$2,688,133	\$5,890,644	\$123,308,753	100%
	%	7%	8%	11%	13%	13%	11%	6%	12%	7%	6%	2%	5%	100%	

Table 14. Sea scallop landings (lbs. of meats) by month & state, March 1999 - February 2000

STATE		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
MAINE	LBS	63,636	18,162	5,876	24,824	30,315	28,564	18,286	22,784	17,008	262,523	60,482	32,000	584,460	3%
	%	11%	3%	1%	4%	5%	5%	3%	4%	3%	45%	10%	5%	100%	
NEW HAMPSHIRE	LBS	966	7	81	119	5	0	22,922	18,268	14,740	12,500	14,648	9,191	93,447	0%
	%	1%	0%	0%	0%	0%	0%	25%	20%	16%	13%	16%	10%	100%	
MASSACHSETTS	LBS	602,563	935,608	1,277,313	1,648,033	1,817,764	1,278,528	674,123	1,718,867	967,957	689,844	260,394	637,239	12,508,233	55%
	%	5%	7%	10%	13%	15%	10%	5%	14%	8%	6%	2%	5%	100%	
RHODE ISLAND	LBS	34,318	0	386	19	10,177	20,113	10,460	13,513	42,845	0	16	0	131,847	1%
	%	26%	0%	0%	0%	8%	15%	8%	10%	32%	0%	0%	0%	100%	
CONNECTICUT	LBS	72,309	69,807	123,622	163,280	61,782	53,994	33,204	70,163	25,835	11,789	26,882	60,822	773,489	3%
	%	9%	9%	16%	21%	8%	7%	4%	9%	3%	2%	3%	8%	100%	
NEW JERSEY	LBS	229,160	332,647	450,157	411,506	320,236	325,708	166,741	193,617	117,553	93,156	50,574	284,663	2,975,718	13%
	%	8%	11%	15%	14%	11%	11%	6%	7%	4%	3%	2%	10%	100%	
VIRGINIA	LBS	478,965	679,716	956,275	1,015,781	868,618	662,090	171,118	152,710	210,064	120,374	30,800	105,167	5,451,678	24%
	%	9%	12%	18%	19%	16%	12%	3%	3%	4%	2%	1%	2%	100%	
OTHER NORTHEAST	LBS	1,537	4,791	3,946	2,438	1,692	4,532	1,521	3,563	2,937	688	539	2,161	30,345	0%
	%	5%	16%	13%	8%	6%	15%	5%	12%	10%	2%	2%	7%	100%	
TOTAL	LBS	1,483,454	2,040,738	2,817,656	3,266,000	3,110,589	2,373,529	1,098,375	2,193,485	1,398,939	1,190,874	444,335	1,131,243	22,549,217	100%
	%	7%	9%	12%	14%	14%	11%	5%	10%	6%	5%	2%	5%	100%	

Table 15. Sea scallop revenue by month & state, March 1999 - February 2000

STATE		MAR-99	APR-99	MAY-99	JUN-99	JUL-99	AUG-99	SEP-99	OCT-99	NOV-99	DEC-99	JAN-00	FEB-00	TOTAL	%
MAINE		\$355,971	\$92,190	\$27,885	\$117,387	\$157,569	\$163,482	\$118,033	\$147,545	\$106,791	\$1,637,185	\$365,903	\$166,631	3,456,572	3%
	%	10%	3%	1%	3%	5%	5%	3%	4%	3%	47%	11%	5%	100%	
NEW HAMPSHIRE		\$5,404	\$36	\$384	\$563	\$26	\$0	\$147,957	\$118,301	\$92,550	\$77,954	\$88,617	\$47,860	579,652	0%
	%	1%	0%	0%	0%	0%	0%	26%	20%	16%	13%	15%	8%	100%	
MASSACHSETTS		\$3,370,652	\$4,749,118	\$6,061,576	\$7,793,176	\$9,448,258	\$7,317,468	\$4,351,345	\$11,131,098	\$6,077,659	\$4,302,107	\$1,575,327	\$3,318,252	69,496,035	56%
	%	5%	7%	9%	11%	14%	11%	6%	16%	9%	6%	2%	5%	100%	
RHODE ISLAND		\$191,970	\$0	\$1,832	\$90	\$52,897	\$115,114	\$67,517	\$87,508	\$269,017	\$0	\$97	\$0	786,042	1%
	%	24%	0%	0%	0%	7%	15%	9%	11%	34%	0%	0%	0%	100%	
CONNECTICUT		\$404,486	\$354,338	\$586,657	\$772,114	\$321,127	\$309,027	\$214,326	\$454,364	\$162,214	\$73,520	\$162,633	\$316,713	4,131,519	3%
	%	10%	9%	14%	19%	8%	7%	5%	11%	4%	2%	4%	8%	100%	
NEW JERSEY		\$1,281,889	\$1,688,506	\$2,136,251	\$1,945,919	\$1,664,502	\$1,864,142	\$1,076,284	\$1,253,832	\$738,098	\$580,953	\$305,962	\$1,482,306	16,018,643	13%
	%	8%	11%	13%	12%	10%	12%	7%	8%	5%	4%	2%	9%	100%	
VIRGINIA		\$2,679,263	\$3,450,218	\$4,538,068	\$4,803,399	\$4,514,847	\$3,789,375	\$1,104,536	\$988,925	\$1,318,961	\$750,694	\$186,333	\$547,629	28,672,248	23%
	%	9%	12%	16%	17%	16%	13%	4%	3%	5%	3%	1%	2%	100%	
OTHER NORTHEAST		\$8,598	\$24,319	\$18,726	\$11,529	\$8,795	\$25,938	\$9,818	\$23,073	\$18,441	\$4,291	\$3,261	\$11,253	168,041	0%
	%	5%	14%	11%	7%	5%	15%	6%	14%	11%	3%	2%	7%	100%	
TOTAL		8,298,232	10,358,724	13,371,378	15,444,177	16,168,022	13,584,546	7,089,816	14,204,645	8,783,732	7,426,704	2,688,133	5,890,644	123,308,753	100%
	%	7%	8%	11%	13%	13%	11%	6%	12%	7%	6%	2%	5%	100%	

3.4.2 Dealers and processing

In the 1999/2000 fishing, there were 141 scallop dealers uniquely identified in the NMFS dealer weigh-out database, a decline of 15 dealers (10%) from the 1998/1999 level at 156 dealers. Unlike the 1998/99 fishing year which Maine was a predominated state in the number of scallop dealers in Northeast, in the 1999/2000 fishing year, Massachusetts was a lead with 53 dealers (38% of the total), followed by Maine with 38 scallop dealers (27%), New Jersey with 20 dealers (14%), New York and Virginia each with 14 dealers (10%), New Hampshire and Rhode Island each with 6 dealers (4%) and the other northeast state group with 8 dealers (6%).⁹

Data on scallop dealers by port is also shown in Table 16. Similar to the 1998/99 fishing year, high-volume dealers tended to locate and concentrate in three major scallop ports while low volume-dealers were in the other ports in the 1999/2000 fishing year. The following should provide the evidence: Scallop dealers in three major scallop ports including New Bedford (MA), Cape May (NJ) and Hampton area (VA) accounted for only about 30% of scallop dealers in Northeast but purchased about 90% of total scallop landings in the region.

For each scallop port and state identified, the number of federally permitted dealers is also presented in Table 16 along with the percent of the federally permitted dealers dealing sea scallops. For example, Bar Harbor (ME) had nine federally permitted dealers in the fishing year and of the nine dealers, 33% (3 dealers) purchased sea scallops. In these scallop ports as a whole, the scallop dealers accounted for 32% of the federally permitted dealer, 141 out of 435 federally permitted dealers, in the fishing year.

⁹ Unlike the data presented in the SAFE report last year, the dealer count in this report is an unique count at each of port, state and regional levels. As a result of this unique counting, the port sum for a state or the state sum for the entire region will exceed the unique count for the state or the region.

Table 16. Number of scallop dealers and other dealers by state and port, March 1999 to February 2000.

State Landed	Port Landed	Scallop Dealers (a)	%	All Dealers (b)	% (a)/(b)
Maine	BAR HARBOR	3	2	9	33
	KNOX	3	2	9	33
	PORTLAND	4	3	29	14
	ROCKLAND	4	3	9	44
	SOUTHWEST HARBOR	4	3	7	57
	SPRUCEHEAD	3	2	8	38
	STONINGTON	4	3	11	36
	SUNSHINE/DEER ISLE	4	3	9	44
	OTHER	24	17	95	25
	Maine total *	38	27	133	29
New Hampshire	ALL *	6	4	17	35
Massachusetts	BARNSTABLE	3	2	17	18
	GLOUCESTER	7	5	52	13
	NEW BEDFORD	25	18	52	48
	NEWBURYPORT	3	2	3	100
	PROVINCETOWN	6	4	21	29
	SANDWICH	5	4	18	28
	WELLFLEET	5	4	6	83
	OTHER	6	4	42	14
	Mass total *	53	38	142	37
Rhode Island	ALL *	7	5	67	10
New York	HAMPTON BAY	9	6	40	23
	MONTAUK	7	5	45	16
	OTHER	3	2	37	8
	NY total *	14	10	61	23
New Jersey	CAPE MAY	9	6	27	33
	PT. PLEASANT	10	7	35	29
	OTHER	6	4	38	16
	NJ total *	20	14	68	29
Virginia	CITY OF SEAFORD	4	3	4	100
	HAMPTON	4	3	9	44
	NEWPORT NEWS	6	4	10	60
	OTHER	4	3	15	27
	VA total *	14	10	29	48
Other Northeast	ALL *	8	6	43	19
TOTAL DEALERS *		141	100	435	32

* Unique Count - For individual port, state and Northeast region. Summing all ports will not equal a unique count of state or region.

3.4.3 Dependence on other fisheries of vessels with limited access scallop permits on trips landing no more than 400 pounds of scallops.

There were 301 scallop vessels involved in trips landing 400 pounds of scallops or less during the 1999-2000 fishing year. The number of vessels decreased by 16 vessels (5%) from the previous fishing year. However, the distribution of vessels by permit category was similar to the previous fishing year. These 301 vessels conducted a total of 2,018 trips that landed no more than 400 pounds of scallops. This represents a slight decline of 11% (261 trips) from the previous fishing year. The scallop landings of this sector were 299,948 pounds, valued at about \$2 million and predominated by the full-time permit and open access permit vessels. Scallop landings were similar to the previous fishing year. Landings for 1999-2000 increased by 2% (6,561 lbs.) from the 1998-1999 fishing year.

3.4.3.1 By Permit Category

Of the 301 vessels, those under the open access permit category dominated the sector with 192 vessels, accounting for 64% of the total (Table 17); followed by the full-time limited access permit category, 85 vessels (28%); the part-time limited access permit category, 20 vessels (7%), and the occasional limited access permit category, 4 vessels (1%).

The open access permit category predominated these trips with a total of 1,372 trips accounting for 68% of the 2,018 of trips; followed by full-time category (475 trips, 24%), the part-time category (159 , 8%), and the occasional permit category (12 trips, 1%) in descending order.

The portion of total scallop landings by full-time permit vessels was 51%, open access vessels landed 33% of the scallop landings, 15 % by part-time permit vessels, and 1% by occasional permit vessels.

In terms of species other than scallops, the open access category had a clearly predominate share of the landings in both quantity and revenue for most of the species. The open access permit vessels accounted for 88% of monkfish landings, 92% of squid, 94% of regulated multispecies, 50% of summer flounder, and 83% of other species (Table 17).

3.4.3.2 By Gear Sector

Dredge and otter trawl vessels predominated in this fishing sector, which other gear types represented by a small number of vessels. During the fishing year, there were 150 dredge vessels (50%), 173 trawl vessels (57%), and 11 vessels used other gear types (4%), for a total of 301 vessels participating in this fishing sector. Some vessels used more than one gear type during the fishing year (Table 18). The total number of participating vessels decreased by 5% (16 vessels) from the previous fishing year. The decrease was mostly represented by the dredge vessels.

In terms of trips, the number of dredge trips exceeded other gear types, with 1,342 trips (67%) of the 2,018 total trips (Table 18). The trawl sector had 656 trips (33%), and there were 35 trips by vessels using other types of gear (2% of total trips).

The majority of the scallop landings and scallop revenue were by scallop dredge vessels. Of a total 299, 948 pound of scallop meats and total revenue of \$2.01 million, the dredge vessels landed 249,180 pounds of scallop meats (83% of total) valued at \$1.72 million (86% of total). The scallop landings by trawl gear were 43, 447 pounds (14%), and the landings by other gear types were 7,321 pounds (2%).

Unlike the scallop landings, the landings for species other than scallops were primarily landed by trawl gear vessels. For example, the trawl gear sector landed 165,403 pounds of monkfish (90% of total), 1,665,047 pounds of squid (100% of total), 2.7 million pounds of multispecies (100% of total), 140,918 pounds of summer flounder (96% of total), and 1 million pounds of other species (90% of total). The balance of the landings for each of these species was mostly landed by the dredge sector, while landings of these species is very small for the vessels using other gear types. The revenue for these species followed a similar pattern to landed quantity as described above.

Total landings of all species was predominately by trawl gear vessels with 4.2 million pounds (91% of total) valued at \$4.6 million (71% of total). Number of vessels, number of trips, and catch distribution by gear sector were similar to that of the previous fishing year.

3.4.3.3 By Permit Category and Gear Sector

The data are also available for further breakdown by permit category/ gear sector, as shown in Table 19. During the fishing year, three permit category/ gear sectors were very important in this fishing sector: full-time dredge, open access dredge, and open access trawl categories. The full-time dredge category accounted for 25% of vessels, 22% of the trips, and 50% of the scallop landings. The open access dredge category accounted for 23% of the vessels, 38% of the trips, and 20% of the total scallop landings. The open access trawl category was particularly important in landings of species other than scallops. This category accounted for 46% of the vessels, 29% of the trips, 11% of the scallop landings, and over 70% of the monkfish, squid, multispecies, other species, and all species landings.

Table 17. Summary of trips by permit category that landed less than or equal to 400 pounds of sea scallops, March 1999 through February 2000.

		Limited Access Permit Category			Open Access	All
		Full Time	Part Time	Occasional	General Category	Permits
Vessels	#	85	20	4	192	301
	%	28%	7%	1%	64%	
Trips	#	475	159	12	1,372	2,018
	%	24%	8%	1%	68%	
Scallops	Lbs.	152,967	43,598	2,981	100,402	299,948 ¹
	%	51%	15%	1%	33%	
	\$	992,444	269,973	14,017	731,950	2,008,384
	%	49%	13%	1%	36%	
Monkfish	Lbs.	18,375	4,346	149	161,013	183,883
	%	10%	2%	<1%	88%	
	\$	37,884	7,660	327	327,651	373,522
	%	10%	2%	<1%	88%	
Squid	Lbs.	2,719	10,182	51	152,132	165,084
	%	2%	6%	<1%	92%	
	\$	1,994	8,026	46	98,582	108,648
	%	2%	7%	<1%	91%	
Multispecies ²	Lbs.	115,921	44,591	48	2,531,187	2,691,747
	%	4%	2%	<1%	94%	
	\$	150,993	52,808	30	2,924,553	3,128,384
	%	5%	2%	<1%	93%	
Summer Flounder	Lbs.	32,097	28,865	12,670	73,353	146,985
	%	22%	20%	9%	50%	
	\$	52,500	54,542	19,793	131,314	258,149
	%	20%	21%	8%	51%	
Other Species ³	Lbs.	78,110	112,379	747	915,329	1,106,565
	%	7%	10%	<1%	83%	
	\$	24,558	34,985	539	537,069	597,151
	%	4%	6%	<1%	90%	
All Species	Lbs.	400,189	243,961	16,646	3,933,416	4,594,212
	%	9%	5%	<1%	86%	
	\$	1,260,373	427,994	34,752	4,751,119	6,474,238
	%	19%	7%	1%	73%	

Source: NMFS dealer and vessel permit data bases.

¹ Trips landing less than or equal to 400 lbs. of scallops, that were landed by unknown vessels have been excluded, and amount to 19,587 lbs. of scallops.

² Includes the 10 regulated large mesh groundfish species.

³ Includes skate, dogfish, ocean quahog, lobster, whiting, horseshoe crab, black sea bass, wolffish, red hake, and others.

Table 18. Summary of trips by gear category that landed less than or equal to 400 pounds of sea scallops, March 1999 through February 2000.

		All Categories (Limited Access and Open Access)			Total
		Dredge	Trawl	Other	
Vessels	#	150	173	11	301 ¹
	%	50%	57%	4%	
Trips	#	1,342	656	35	2,018 ¹
	%	67%	33%	2%	
Scallops	Lbs.	249,180	43,447	7,321	299,948 ²
	%	83%	14%	2%	
	\$	1,721,769	247,730	38,885	2,008,384
	%	86%	12%	2%	
Monkfish	Lbs.	17,410	165,403	1,070	183,883
	%	9%	90%	1%	
	\$	36,513	334,884	2,125	373,522
	%	10%	90%	1%	
Squid	Lbs.	0	165,047	37	165,084
	%	0%	100%	<1%	
	\$	0	108,620	28	108,648
	%	0%	100%	<1%	
Multispecies ³	Lbs.	2,230	2,687,567	1,950	2,691,747
	%	<1%	100%	<1%	
	\$	2,049	3,124,231	2,104	3,128,384
	%	<1%	100%	<1%	
Summer Flounder	Lbs.	5,925	140,918	142	146,985
	%	4%	96%	<1%	
	\$	11,634	246,139	376	258,149
	%	5%	95%	<1%	
Other Species ⁴	Lbs.	103,481	1,000,992	2,092	1,106,565
	%	9%	90%	<1%	
	\$	40,955	553,887	2,309	597,151
	%	7%	93%	<1%	
All Species	Lbs.	378,226	4,203,374	12,612	4,594,212
	%	8%	91%	<1%	
	\$	1,812,920	4,615,491	45,827	6,474,238
	%	28%	71%	1%	

Source: NMFS dealer and vessel permit data bases.

¹ This total represents a unique count. Vessels may have used more than one gear type.

² Trips landing less than or equal to 400 lbs. of scallops, that were landed by unknown vessels have been excluded, and amount to 19,587 lbs. of scallops.

³ Includes the 10 regulated large mesh groundfish species.

⁴ Includes skate, dogfish, ocean quahog, lobster, whiting, horseshoe crab, black sea bass, wolffish, red hake, and others.

Table 19. Summary of trips that landed less than or equal to 400 pounds of sea scallops, March 1999 through February 2000 for limited access and open access scallop permits.

	Limited Access Permit Categories												Open Access Permit Category				All Permit Categories	
	Full Time				Part Time				Occasional				Dredge	Trawl	Other	Total		
	Dredge	Trawl	Other	Total	Dredge	Trawl	Other	Total	Dredge	Trawl	Other	Total						
Vessels	#	75	15	2	85	6	15	1	20	0	4	0	4	69	139	8	192	301
	%	25%	5%	1%	28%	2%	5%	<1%	7%	0%	1%	0%	1%	23%	46%	3%	64%	100%
Trips	#	451	23	2	475	131	27	1	159	0	12	0	12	760	594	32	1,372	2,018
	%	22%	1%	<1%	24%	6%	1%	<1%	8%	0%	1%	0%	1%	38%	29%	2%	68%	100%
Scallops	Lbs.	149,011	3,909	47	152,967	38,830	4,751	17	43,598	0	2,981	0	2,981	61,339	31,806	7,257	100,402	299,948
	%	50%	1%	<1%	51%	13%	2%	<1%	15%	0%	1%	0%	1%	20%	11%	2%	33%	100%
	\$	972,850	19,382	212	992,444	247,438	22,459	76	269,973	0	14,017	0	14,017	501,481	191,872	38,597	731,950	2,008,384
	%	48%	1%	<1%	49%	12%	1%	<1%	13%	0%	1%	0%	1%	25%	10%	2%	36%	100%
Monkfish	Lbs.	14,971	3,404	0	18,375	1,789	2,557	0	4,346	0	149	0	149	650	159,293	1,070	161,013	183,883
	%	8%	2%	0%	10%	1%	1%	0%	2%	0%	<1%	0%	<1%	<1%	87%	1%	88%	100%
	\$	31,353	6,531	0	37,884	3,917	3,743	0	7,660	0	327	0	327	1,243	324,283	2,125	327,651	373,522
	%	8%	2%	0%	10%	1%	1%	0%	2%	0%	<1%	0%	<1%	<1%	87%	1%	88%	100%
Squid	Lbs.	0	2,719	0	2,719	0	10,182	0	10,182	0	51	0	51	0	152,095	37	152,132	165,084
	%	0%	2%	0%	2%	0%	6%	0%	6%	0%	<1%	0%	<1%	0%	92%	<1%	92%	100%
	\$	0	1,994	0	1,994	0	8,026	0	8,026	0	46	0	46	0	98,554	28	98,582	108,648
	%	0%	2%	0%	2%	0%	7%	0%	7%	0%	<1%	0%	<1%	0%	91%	<1%	91%	100%
Multi-Species ¹²	Lbs.	660	115,261	0	115,921	1,530	43,061	0	44,591	0	48	0	48	40	2,529,197	1,950	2,531,187	2,691,747
	%	<1%	4%	0%	4%	<1%	2%	0%	2%	0%	<1%	0%	<1%	<1%	94%	<1%	94%	100%
	\$	637	150,356	0	150,993	1,384	51,424	0	52,808	0	30	0	30	28	2,922,421	2,104	2,924,553	3,128,384
	%	<1%	5%	0%	5%	<1%	2%	0%	2%	0%	<1%	0%	<1%	<1%	93%	<1%	93%	100%
Summer Flounder	Lbs.	4,820	27,277	0	32,097	1,105	27,760	0	28,865	0	12,670	0	12,670	0	73,211	142	73,353	146,985
	%	3%	19%	0%	22%	1%	19%	0%	20%	0%	9%	0%	9%	0%	50%	<1%	50%	100%
	\$	9,355	43,145	0	52,500	2,279	52,263	0	54,542	0	19,793	0	19,793	0	130,938	376	131,314	258,149
	%	4%	17%	0%	20%	1%	20%	0%	21%	0%	8%	0%	8%	0%	51%	<1%	51%	100%
Other Species ¹³	Lbs.	13,033	63,854	1,223	78,110	208	112,171	0	112,379	0	747	0	747	90,240	824,220	869	915,329	1,106,565
	%	1%	6%	<1%	7%	<1%	10%	0%	10%	0%	<1%	0%	<1%	8%	74%	<1%	83%	100%
	\$	2,533	20,035	1,990	24,558	70	34,915	0	34,985	0	539	0	539	38,352	498,398	319	537,069	597,151
	%	<1%	3%	<1%	4%	<1%	6%	0%	6%	0%	<1%	0%	<1%	6%	83%	<1%	90%	100%
All Species	Lbs.	182,495	216,424	1,270	400,189	43,462	200,482	17	243,961	0	16,646	0	16,646	152,269	3,769,822	11,325	3,933,416	4,594,212
	%	4%	5%	<1%	9%	1%	4%	<1%	5%	0%	<1%	0%	<1%	3%	82%	<1%	86%	100%
	\$	1,016,728	241,443	2,202	1,260,373	255,088	172,830	76	427,994	0	34,752	0	34,752	541,104	4,166,466	43,549	4,751,119	6,474,238
	%	16%	4%	<1%	19%	4%	3%	<1%	7%	0%	1%	0%	1%	8%	64%	1%	73%	100%

3.4.4 Trade

(S. Edwards)

U.S. imports of fresh or frozen scallop products increased at an average annual rate of about 1.4 million pounds between 1977 when the Magnuson-Stevens Act was implemented and 1999, exceeding 60 million pounds in 1997 (Figure 6). Exports also increased during this period, but they are relatively small in volume compared to imports (roughly 10 percent).

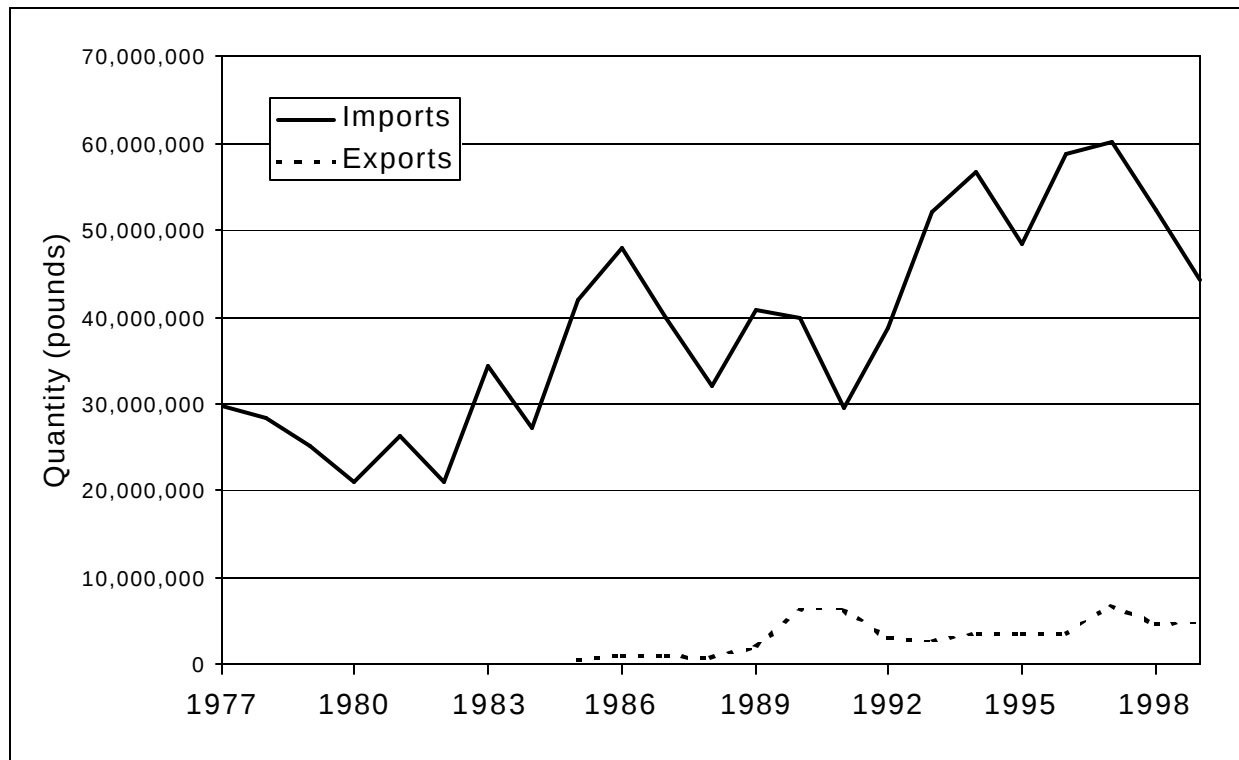


Figure 6. U.S. trade (imports and exports) of sea scallops, Northeastern U.S. NMFS: Unpublished data.

Although imports increased, the total U.S. scallop supply declined somewhat since the mid-1980s (Figure 7). Domestic supplies of Atlantic sea scallop, bay and calico scallop from the Atlantic and Gulf of Mexico regions, and weathervane scallop from Alaska together peaked above 61 million pounds in 1984. During the late 1980s and early 1990s domestic supplies and imports were roughly equal in volume, but as the landings of sea scallop and other domestic species waned into the 1990s, imports expanded. (Landings of bay and calico scallops during 1999 are not available.) In 1999, Atlantic sea scallop landings exceeded 20 million pounds for the first time since 1992, contributing roughly a third to total U.S. supplies.

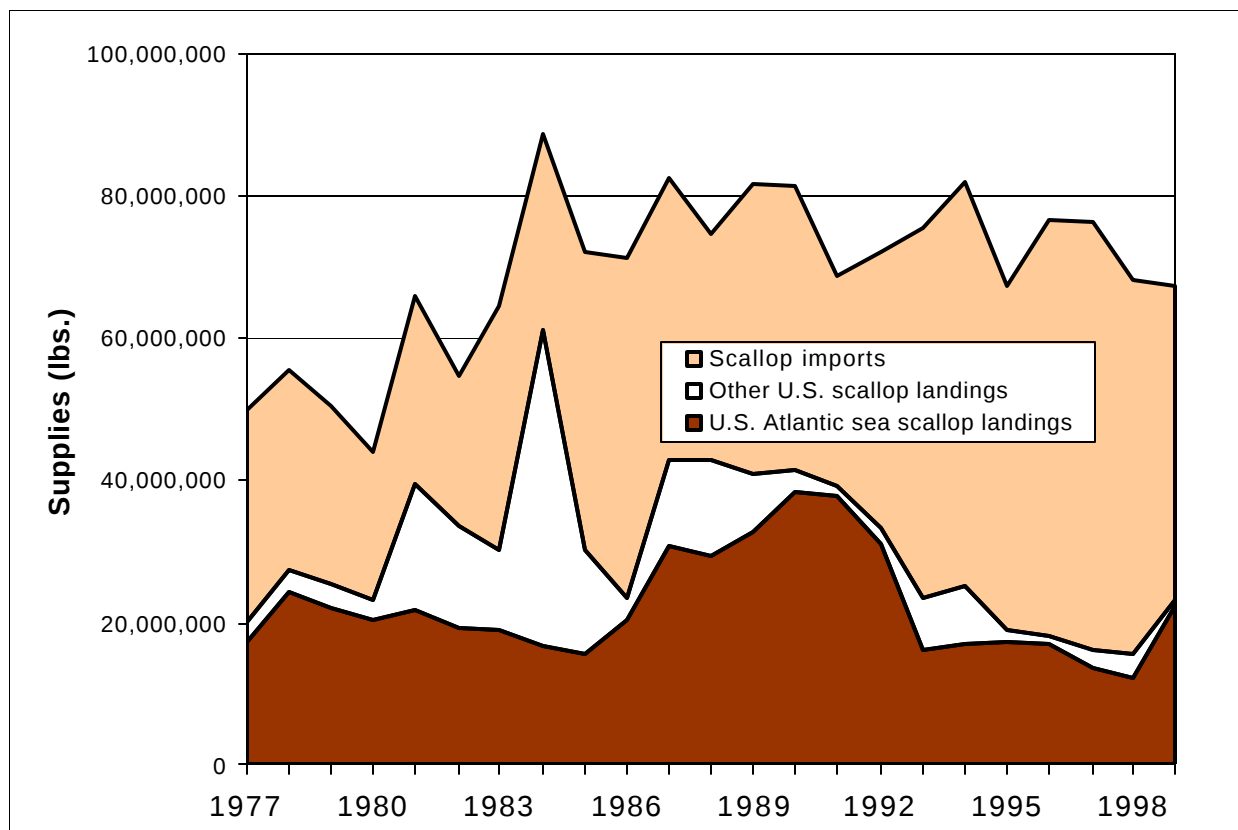


Figure 7. Total U.S. supplies of sea scallops, 1976-1999. NMFS: Unpublished data.

Figure 8 graphs scallop supplies in the Northeast Region. Roughly two-thirds of total U.S. scallop imports entered the Northeast Region since the early 1980s. Imports were squeezed during the late 1980s and early 1990s when domestic landings of Atlantic sea scallop reached historical highs. However, imports have substantially exceeded domestic supplies since 1993. In 1999 when Atlantic sea scallop landings rebounded due to recruitment in open areas and temporary access to groundfish Closed Area 2 there was virtually no change in imports from the previous year, and imports comprised nearly 60 percent of total scallop supplies in the Northeast.

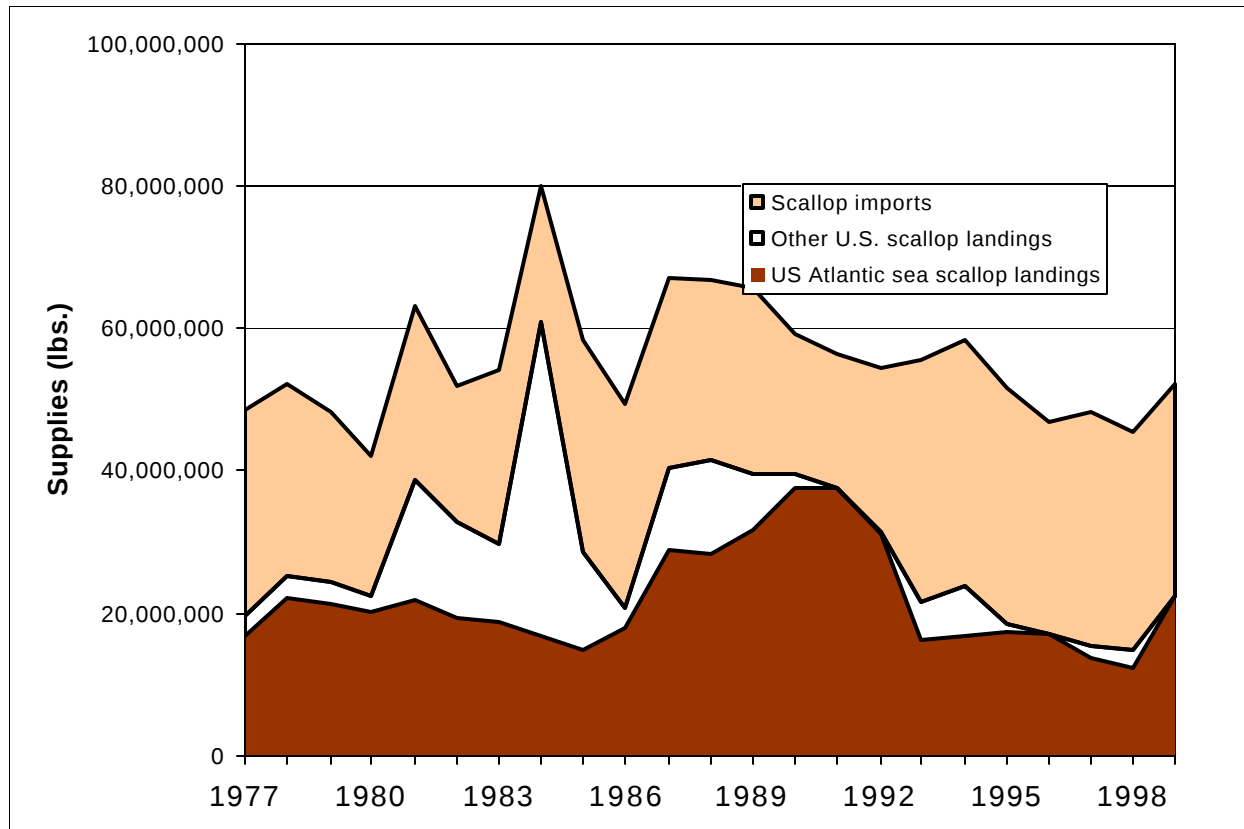


Figure 8. Scallop supplies (lbs.) in the Northeast Region, 1976-1999. NMFS: Unpublished data.

Canada continues to be the leading nation that exports scallops (presumably Atlantic sea scallops) to the USA (Figure 9), and virtually all of it enters the Northeast Region through Maine. However, Iceland=s position as a principal exporter to the USA has been taken over by countries in Asia and South America where scallops are cultured. In particular, China, Argentina, and Japan substantially increased exports to the USA during the 1990s, including through the Northeast Region. Together, imports from these countries exceeded those from Canada since 1995. Dockside revenues returned to the scallop industry have been less than purchases of imports since 1993 (Figure 10).

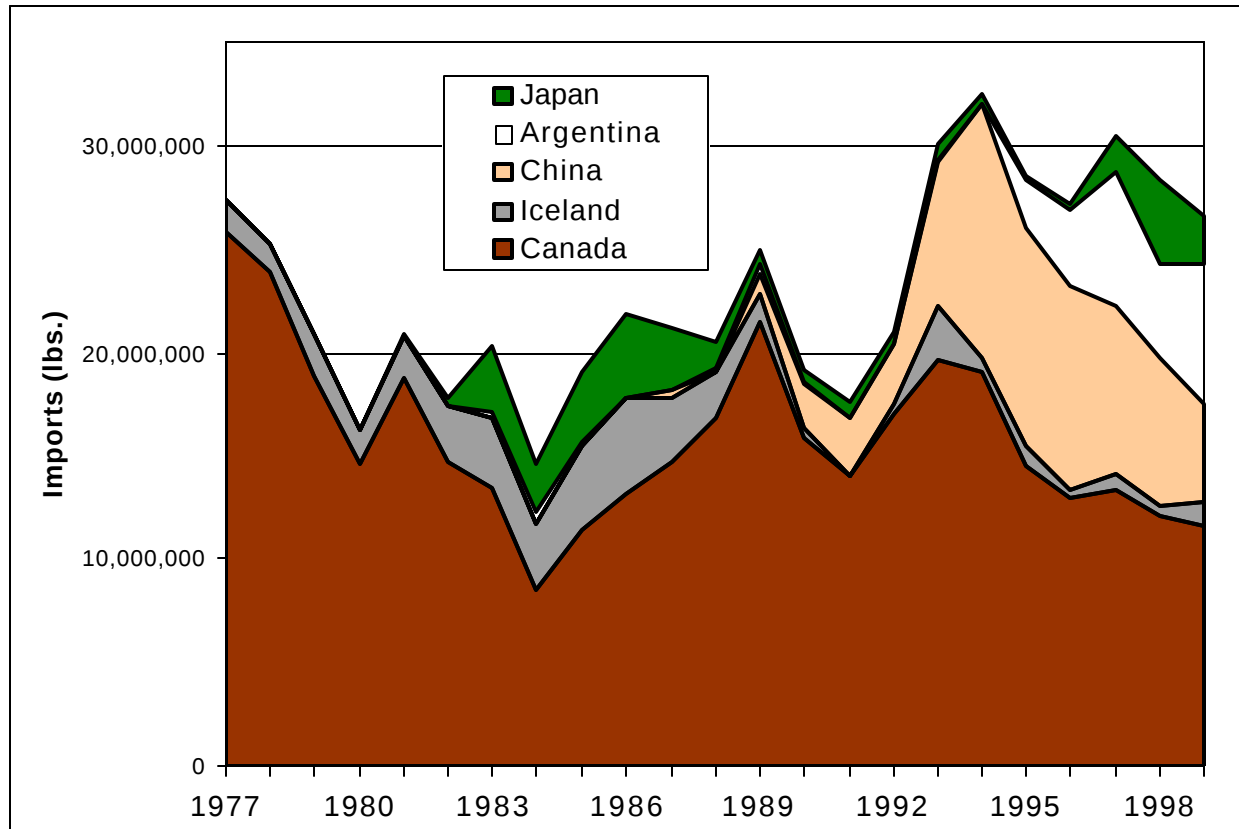


Figure 9. Scallop Imports into the Northeast Region from principal countries (lbs.). NMFS: Unpublished data.

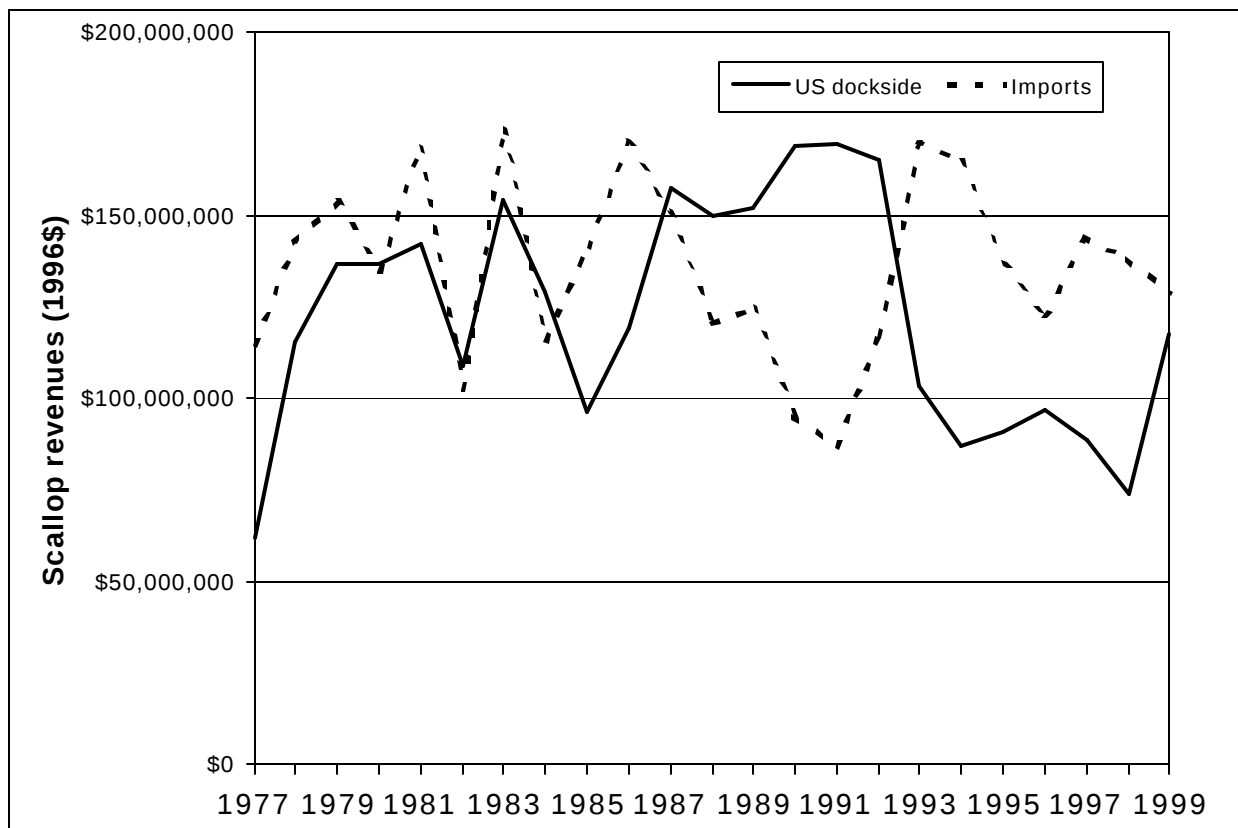


Figure 10. Scallop revenues (1996\$) in the Northeast Region, 1976-1999. NMFS: Unpublished data.

The seasonal pattern of supplies of scallops in the Northeast Region is graphed in Figure 11. Domestic landings of Atlantic sea scallops and imports from Canada tend to be in phase, peaking during summer months. In contrast, imports from countries other than Canada peak during the winter months. This pattern is especially noticeable since 1998.

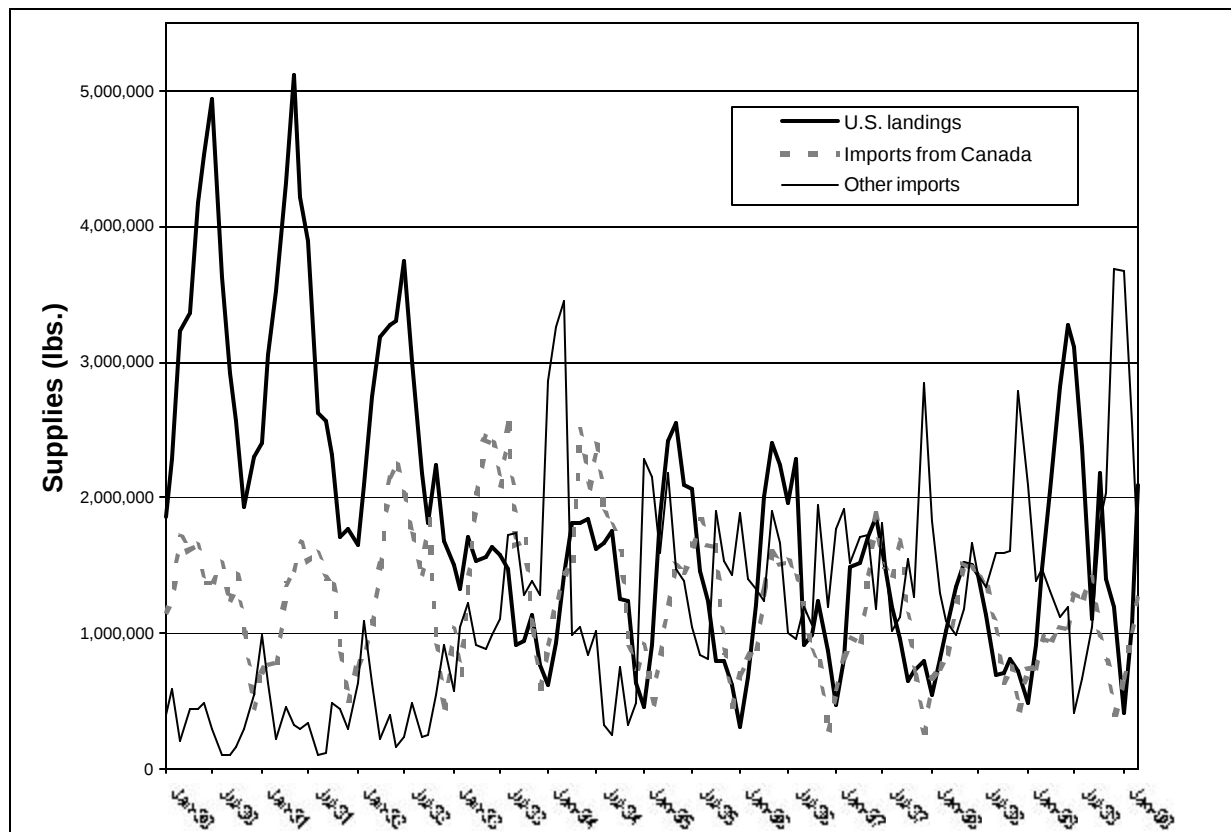


Figure 11. Monthly scallop supplies in the Northeast Region (lbs.), January 1990 to March 2000. NMFS: Unpublished data.

There is a need to research the dynamic scallop markets in order to better understand the impacts of scallop area management and potentially large increases in domestic landings of Atlantic sea scallop on dockside prices, international trade, processing, marketing, and net economic benefits for the scallop fishery, the seafood sector of the economy, and consumers. Related to each of these issues is price. The price information in Figure 12 - which has been adjusted to 1996\$ using the GDP price deflator - suggests that in addition to imports of Atlantic sea scallop from Canada, imports from Japan could be a close substitute for U.S. landings. These three sources of scallops were priced at around \$6.00 per pound in 1999. In contrast, scallops from China (\$3.40) and Argentina (\$1.60) were priced relatively low - about \$3.40 and \$1.60, respectively. Dockside prices for even the smallest sea scallop market category averaged more than \$4.50 during 1998 and 1999 (Figure 13).

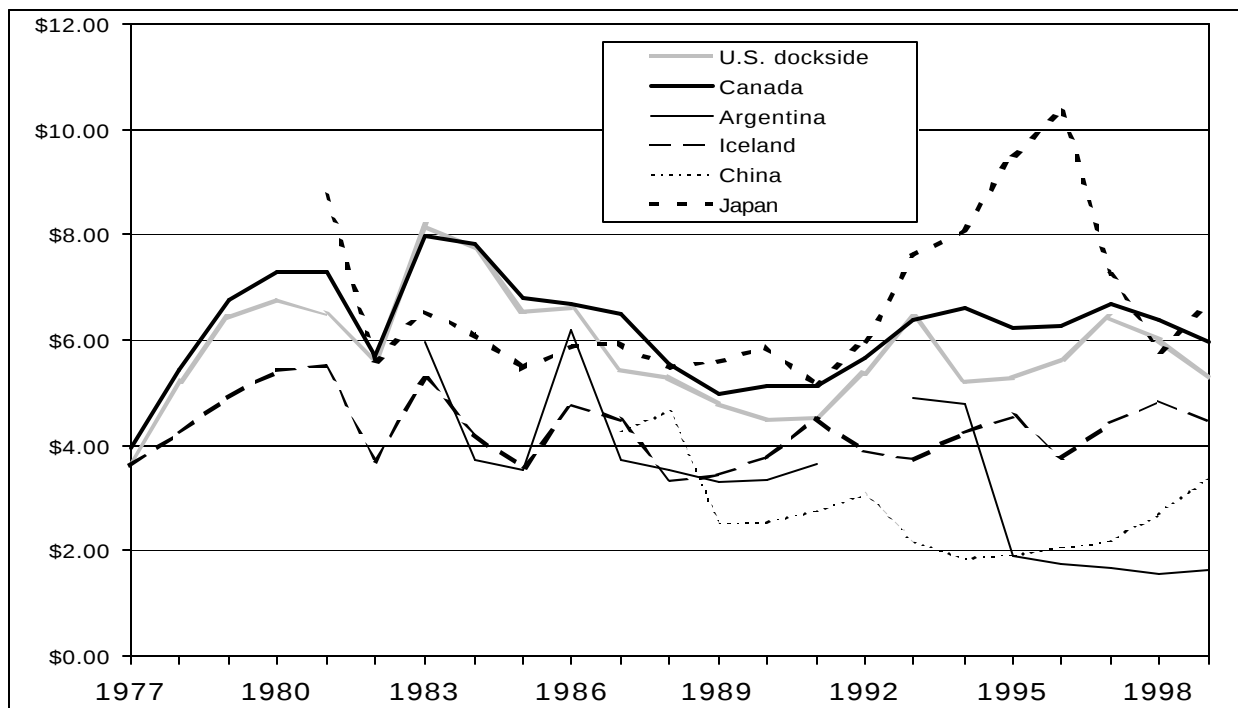


Figure 12. Comparison of scallop import prices from major country (1996\$ per lb.). NMFS: Unpublished data.

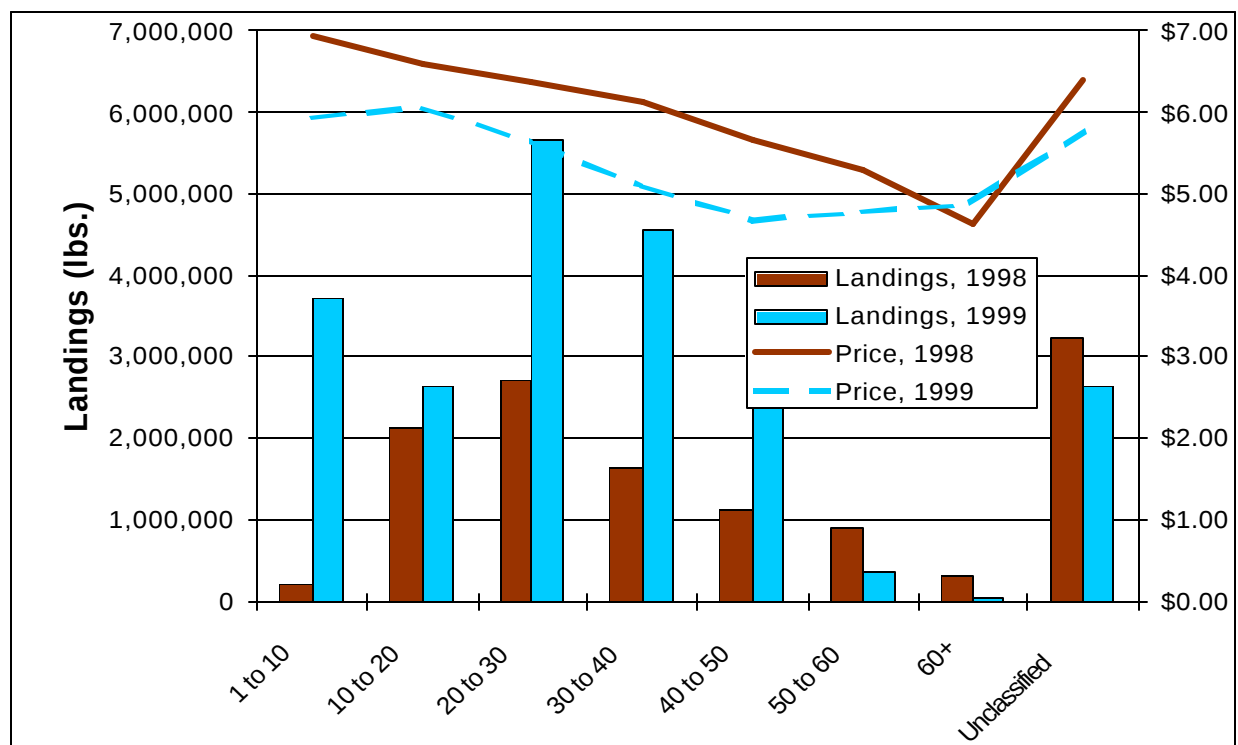


Figure 13. Scallop price structure and landings, 1998 and 1999. NMFS: Unpublished data.

3.4.4.1 Dealers

During the 1999 sea scallop season, 359 dealers had Federal permits to buy Atlantic sea scallops from fishermen, down from 371 in 1998. The vast majority of these companies were in New England (231) or Mid-Atlantic states (122). Six permits were from outside the Northeast Region.

In comparison, only about half (185) of the permitted dealers from Northeast Region purchased Atlantic sea scallop during this season according to VTR and weighout sources (Table 20). Their purchases of 22.1 million pounds were just shy of the 22.5 million for the region¹⁰. During the 1998 season, 240 dealers purchased 10.7 million pounds in the region.

Table 20. Number of permitted dealers from the Northeast Region that purchased Atlantic sea scallop from fishermen during the 1999 sea scallop season (March 1, 1999, to February 28, 2000) and their volume. Total regional landings include hail weights from the VTR database when individual dealers could not be identified in the dealer data.

Registered Location of Dealer		Number of Dealers	Quantity	
			Million Pounds	Percent of Total
New England	Total	132	14.3	65%
	Maine	43	0.3	1%
	Massachusetts	68	13.4	61%
Mid-Atlantic	Total	53	7.9	35%
	New Jersey	12	2.7	12%
	Virginia	13	5.1	23%
Northeast Region		185	22.1	-

Over 70 percent of the dealers who purchased sea scallops were in New England, and these dealers purchased a nearly 66 percent of landings (Table 20). MA was the leading state in number of dealers (68) and volume (13.4 million pounds) - more than all of the Mid-Atlantic states combined. VA and NJ had similar numbers of dealers - 13 and 12, respectively - but VA dealers purchased nearly twice as much landings (5.1 million pounds versus 2.7 million pounds).

Relatively few dealers purchased the majority of sea scallop landings in the region (Table 21). Seven dealers in Massachusetts, New Jersey, and Virginia each bought more than 1 million pounds, which amounted to 58 percent of total landings. Expenditures by these dealers ranged from about \$5 million to \$14 million. Another 8 dealers also from these states each bought between a 0.5 and 1 million pounds and together purchased a quarter of total landings. Fourteen other dealers from these states and

¹⁰ VTR data on hail weights were used when dealer data were missing, as would be the case for dealers lumped together in the General Canvas.

ME and CT each bought between 100 thousand and 500 thousand pounds, or 12 percent of the total. The remaining 156 dealers (84 percent) in aggregate bought 5 percent of total landings.

Table 21. Dealers in the Northeast Region ranked by amount of Atlantic sea scallop purchased from the U.S. fishery.

Amount Purchased (pounds)	Dealers		Percent of Total Purchases
	Number	Percent of Total	
More than 1 million	7	4%	58%
500 thousand to 1 million	8	4%	25%
100 thousand to 500 thousand	14	8%	12%
Less than 100 thousand	156	84%	5%

Payments for sea scallop expressed relative to total fish purchases can indicate the dependence of regional dealers on the Atlantic sea scallop fishery for raw product. This overview is restricted to the 119 dealers who reported purchases to NMFS in dealer reports during the 1999 season. (Dealers identified in the VTR data were not included because VTR data do not include revenues.) Sea scallop purchases amounted to at least 70 percent of total fish purchases by 28 dealers throughout the region, including 7 out of the 15 firms that each bought at least 500 thousand pounds of landings as just discussed. Thirty-four of the 119 firms were 70 percent dependent on sea scallop landings, and a third (40) were 50 percent dependent. These results overstate dependence on the U.S. sea scallop fishery to the extent that dealers rely on imports and inshore landings of scallops or other seafood products.

3.4.4.2 Processors

There have been no updates to our understanding of the processing and marketing of sea scallops in the region since the 1999 SAFE Report which cited the Altobello et al. (1977) dissertation as the last comprehensive study. See the 1999 SAFE Report and Georgianna et al. (1993) for comment. We remain mostly uninformed about product forms and the distribution and marketing of scallops, including imports and especially in quantitative terms. For example, data from the processed products survey available from NMFS Headquarters indicate that nearly 6.5 million pounds of sea scallop products were processed during the 1999 calendar year, but domestic landings and imports of presumably sea scallop meats from Canada amounted to over 34 million pounds.

Twenty-four processor companies in the Northeast Region received nearly \$35 million for their production of 6.5 million pounds of scallop products during 1999 (Table 22). These companies employed 1926 people. Overall, the industry received 9 percent of its \$394 million in sales from scallop products. Most of the companies (62%), employment (62%), and output (84%) were in New England, and New England companies as a group were more dependent on scallop sales - 10 percent compared to 5 percent in the Mid-Atlantic. Massachusetts was the leading state with 7 companies, 44 percent of employees, and 61 percent of total output. In 1998 (see the 1999 SAFE Report) the 25 processor companies were similarly divided between New England (16) and the Mid-Atlantic (9), but scallop production in pounds

and output were approximately evenly split between regions, and total output was 62 percent higher. Another difference between 1998 and 1999 is that companies were more dependent on scallop output during 1998 - 18 percent overall, 13 percent in New England, and 30 percent in the Mid-Atlantic.

Table 22. Output and employment by companies that responded to the NMFS processed products survey for the 1999 calendar year. Output includes a small amount of bay scallop products (about 330 thousand pounds) but otherwise is sea scallop products. Source: NMFS, Silver Spring, MD.

Geographic Location	Number of Companies	Number of Employees	Scallop Production		
			Pounds (million)	Output	
				Dollars (million)	Percentage of Total Output
New England	15	1198	5.356	\$29.471	10%
Mid-Atlantic	9	728	1.149	\$5.428	5%
Northeast Region	24	1926	6.505	\$34.899	9%

In 1999, sea scallops comprised 95 percent of total scallop production in weight and 99 percent of total output, with bay scallops making up the difference. Nearly 88 percent of the sea scallop products (by weight) were shucked meats priced at \$5.50 per pound, followed by 494 thousand pounds of breaded and cooked sea scallops at \$3.29, 244 thousand pounds of breaded whole sea scallops at \$5.75 per pound, 5 thousand pounds of smoked sea scallops at \$12.41, and 151 pounds of IQF (individually-quick-frozen) sea scallops at \$4.24.

The NMFS publication, "Frozen Fishery Products, Annual Summary, 1999" (Current Fisheries Statistics No. 9901, available at http://www.st.nmfs.gov/st1/market_news/index.html), reports little change in month-to-month holdings of frozen sea scallop meats. Although domestic landings of sea scallops and imports from Canada amounted to 34 million pounds, inventories increased slightly from 4.515 million pounds in January to 4.649 million pounds in December. Inventories ranged from 3.452 million pounds in October to the December figure.

3.4.4.3 Wholesale Market

Citing Georgianna et al. (1993), the 1998 SAFE Report noted that sea scallop distribution is thought to be mostly regional through restaurants, fish markets, supermarkets, and institutions. In general, dealers and other wholesalers transport scallop products to the next market, be it processing or retail. There is a dearth of quantitative information, however, on the number of wholesalers who move scallop products.

Figure 14 compares dockside prices of 10/20 count (meats-per-pound) Atlantic sea scallops landed in New Bedford, MA, during the 1999 calendar year and fresh wholesale prices of New Bedford scallops sold at the Fulton Fish Market, New York City. (The report "Fresh Fish Prices at Fulton Fish Market" are available at NMFS's website http://www.st.nmfs.gov/st1/market_news/index.html.)

Wholesale prices of dry, 10/20 count sea scallop were priced approximately \$2 higher than dockside prices which also varied seasonally. In contrast, the wholesale prices of so-called Awet≅ 10/20 count sea scallops of the same size that are packed in plastic with fluid and preservatives were relatively constant throughout the year and less than dockside prices except during the summer.

The price differential between 10/20 and 20/30 count sea scallops found in dockside markets was transferred to wholesale prices (Figure 14).

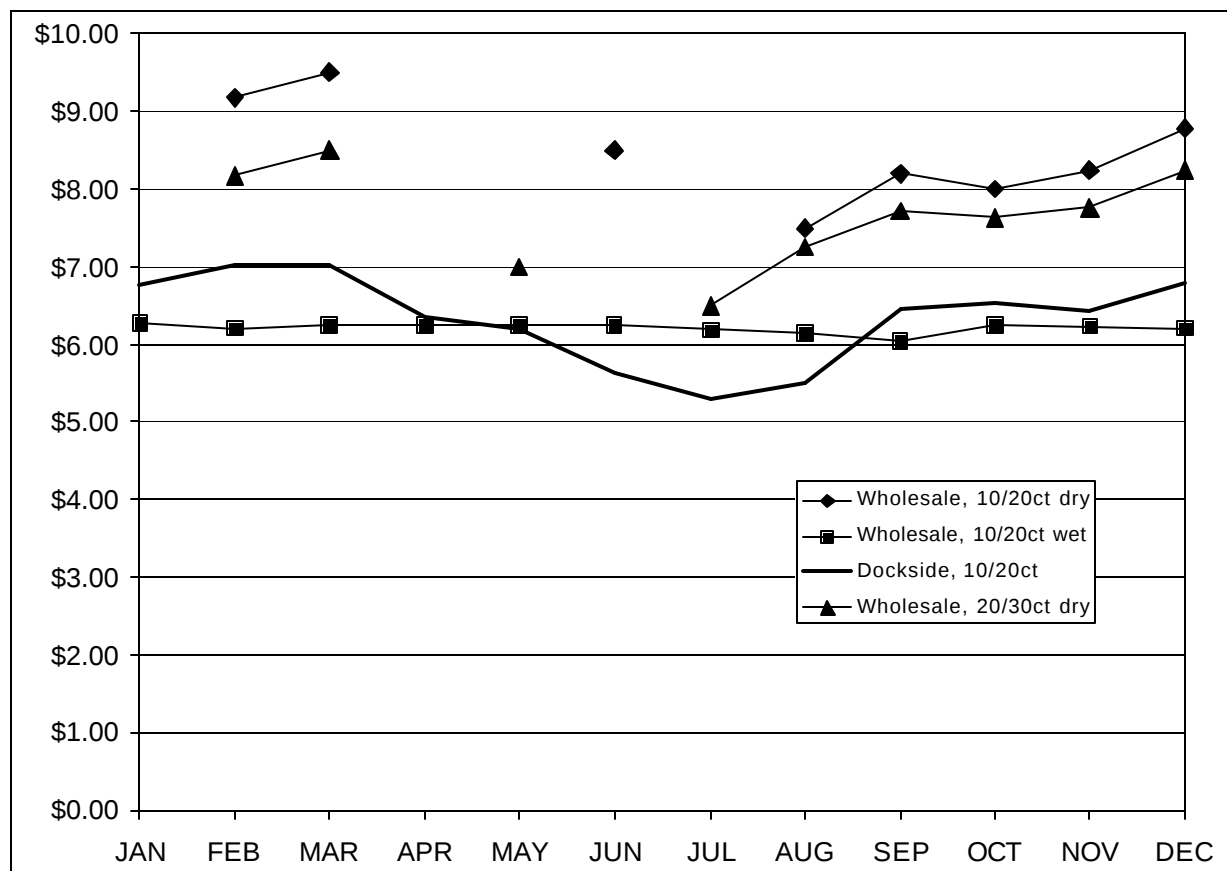


Figure 14. Monthly average wholesale and dockside prices of New Bedford, MA, sea scallops, 1999. NMFS: Unpublished data.

3.5 Social Factors

(J. Olsen)

3.5.1 The scallop fleet

Amendment 4 created the limited access program for the scallop fleet. Limited access permits, which are regulated through Days at Sea effort controls, are categorized into full-time, part-time, or occasional vessels. Other vessels landing scallops may have general category permits, which allow them

to land up to 400 pounds of meats or 50 bushels of shell stock per trip; vessels with neither a limited access nor a general category permit are limited to 40 pounds of meat or 5 bushels of shell stock per trip. There were 290 limited access permits and 2095 general category permits issued in fishing year 1999, which runs from March 1999 through February 2000. As shown in Table 23, the majority (73.4%) of limited access permits are full-time. There were also 55 limited access history permits (where the permit-holder no longer has a vessel but retains its qualifying history, and thus could purchase a new vessel and activate the history permit on it.) The following analysis concentrates on the 290 limited access permits, not including history permits or general category permits unless stated otherwise. The limited access scallop fleet shares a number of characteristics, namely a composition of mainly large vessels (Table 24) and the dominant use of scallop dredge as principal gear (Table 25).

Table 23. Number of active permit vessels per scallop limited access category, 1999 permit data.

Category	Number of Vessels	Percent of Total
Limited Access Full-time	213	73.4%
Limited Access Part-time	12	4.1%
Limited Access Occasional	4	1.4%
Limited Access Full-time Small Dredge	1	0.4%
Limited Access Part-time Small Dredge	3	1.0%
Limited Access Full-time Net Only	15	5.2%
Limited Access Part-time Net Only	22	7.6%
Limited Access Occasional Net Only	20	6.9%
Total	290	100%

Table 24. All active permit limited access scallop vessels by size categories, 1999 permit data

Length Category	Number of Vessels	Percent of Total	Tonnage Category	Number of Vessels	Percent of Total
0-45 ft	6	2.1%	0-50 GRT	9	3.1%
46-60 ft	5	1.7%	51-100 GRT	37	12.8%
61-80 ft	129	44.5%	101-150 GRT	100	34.5%
81-100 ft	137	47.2%	151-175 GRT	64	22.1%
101+ ft	13	4.5%	176+ GRT	80	27.6%
Total	290	100%	Total	290	100%

Table 25. Distribution of gear types on active permit limited access scallop vessels, 1999 permit data.

Type of Gear	Number of Vessels	Percent of Total
Dredge (tog = 410)	245	85%
Bottom trawl (tog = 310)	55	15%
Total	290	100%

Table 26 shows days at sea usage by full-time vessels. Full-time vessels were allocated 120 days-at-sea in 1999, and the majority (87.4%) of these vessels used at least half of their allocation. As shown in Table 27, part-time scallop vessels were allocated 48 days in 1999, and almost 2/3rd of them (64.8%) had used at least half of their allocated days.

Table 26. DAS usage by full-time vessels (229 active full-time boats and 32 history permits), 1999 fishing year.

Number of DAS Used	Number of All Vessels Using that DAS Level (N=261)	Percent of Vessels Who Called in DAS (N=216=261-45)	Percent of Active Full-time Permit Vessels (N=229)	Percent of All Vessels including history permits (N=261)
0	13 + 32 history = 45	n/a	5.7%	17.2%
0.01-10	1	0.5%	0.4%	0.4%
10.01-20	2	0.9%	0.9%	0.8%
20.01-30	4	1.9%	1.7%	1.5%
30.01-40	3	1.4%	1.3%	1.1%
40.01-50	3	1.4%	1.3%	1.1%
50.01-60	3	1.4%	1.3%	1.1%
60.01-70	2	0.9%	0.9%	0.8%
70.01-80	8	3.7%	3.5%	3.1%
80.01-90	11	5.1%	4.8%	4.2%
90.01-100	32	14.8%	14.0%	12.3%
100.01-110	77	35.6%	33.6%	29.5%
110.01-120	57	26.4%	24.9%	21.8%
120.01-130*	13	6.0%	5.7%	5.0%
Total	261	100%	100%	100%

* The DAS limit was 120 DAS in 1999, but vessels were allowed to carry up to 10 unused DAS from the previous year.

Table 27. Day-at-sea use by part-time vessels (37 active part-time boats and 21 history permits), 1999 fishing year

Number of DAS Used	Number of All Vessels Using that DAS Level (N = 58)	Percent of Vessels Who Called in DAS (N=26)	Percent of Active Part-time Permit Vessels (N=37)	Percent of All Vessels including history permits (N=58)
0	11 + 21 history = 32	n/a	29.7%	55.2%
0.01-10	1	3.9%	2.7%	1.7%
10.01-20	0	0.0%	0.0%	0.0%
20.01-30	4	15.4%	10.8%	6.9%
30.01-40	6	23.1%	16.2%	10.3%
40.01-48	5	19.2%	13.5%	8.6%
48.01-53	5	19.2%	13.5%	8.6%
53.01-58	5	19.2%	13.5%	8.6%
Total	58	100%	100%	100%

Most occasional vessels (91.6%), however, show no use of days at sea in 1999, as shown in Table 28.

Table 28. DAS usage by occasional vessels (24 active occasional boats and 2 history permits), 1999 fishing year.

Number of DAS Used	Number of Vessels Using that DAS Level (N = 26)	Percent of Vessels Who Called in, Using that DAS Level (N=2)	Percent of All Active Permit Vessels Using that DAS Level (N=24)	Percent of All Vessels Using that DAS Level (N=26)
0	22 + 2 history = 24	n/a	91.6%	92.3%
0.01-10	1	50%	4.2%	3.8%
10.01-12	1	50%	4.2%	3.8%
Total	26	100%	100%	100%

A breakdown of the dockside value from all species caught by full-time, part-time, and occasional vessels shows a similar pattern. As Figure 15 shows, full-time vessels target scallops principally, with 86% of their catch by value coming from sea scallops. This drops to 36% for part-time vessels (Figure 16) and 3% (Figure 17) for occasional vessels.

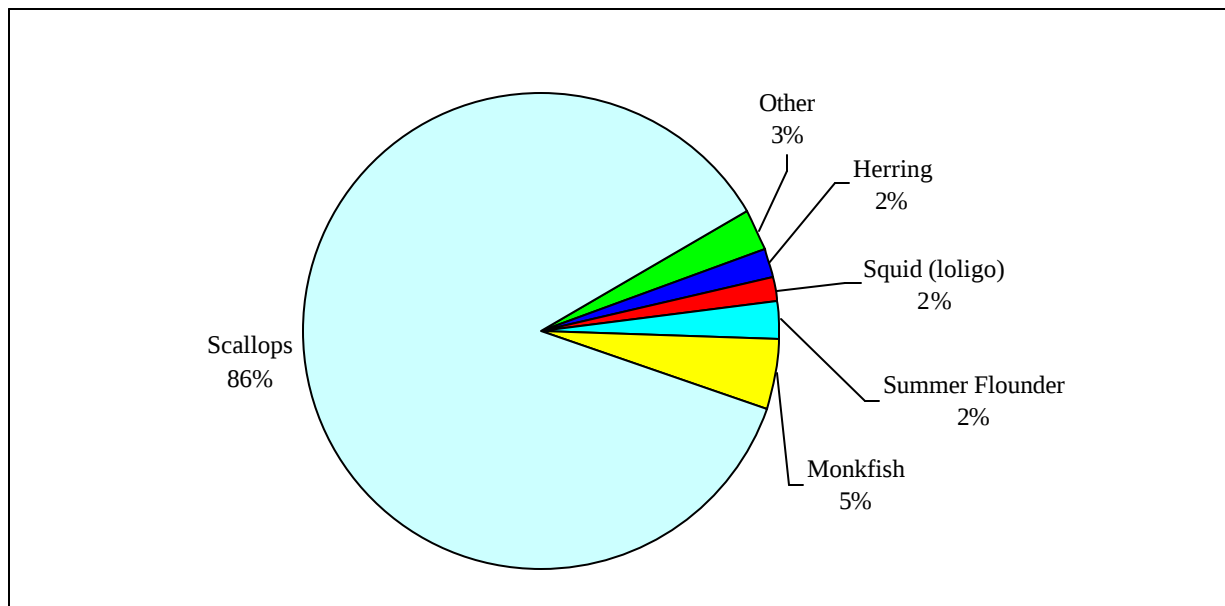


Figure 15. Composition of total landed value by species, for full-time vessels in the 1999 fishing year (dealer weigh-out data).

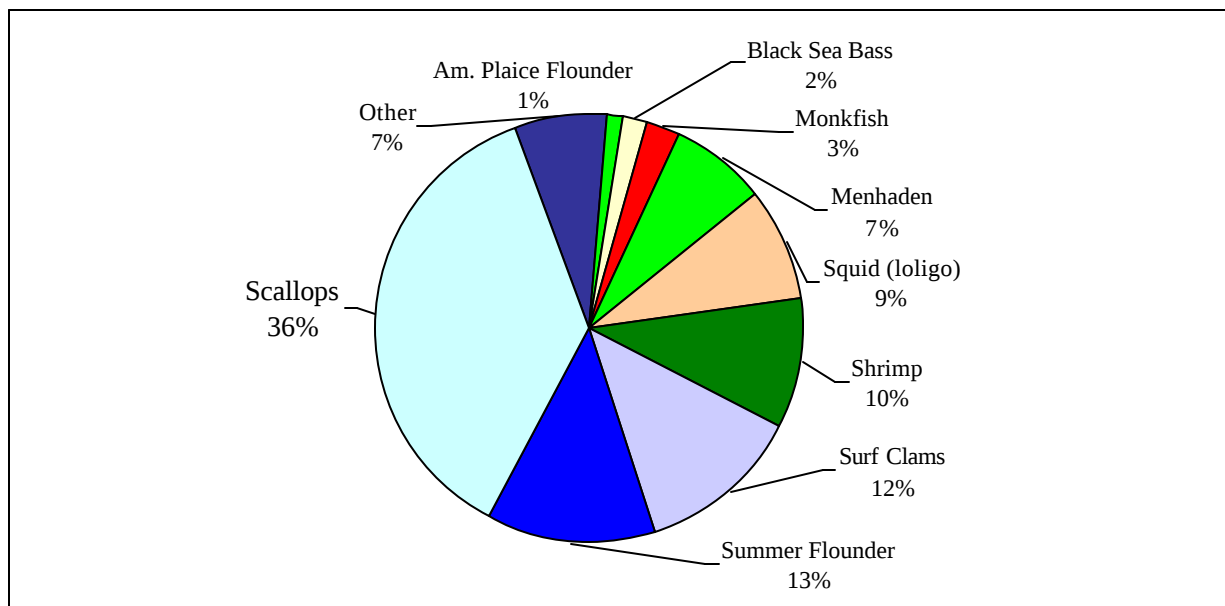


Figure 16. Composition of total landed value by species, for part-time vessels in the 1999 fishing year (dealer weigh-out data).

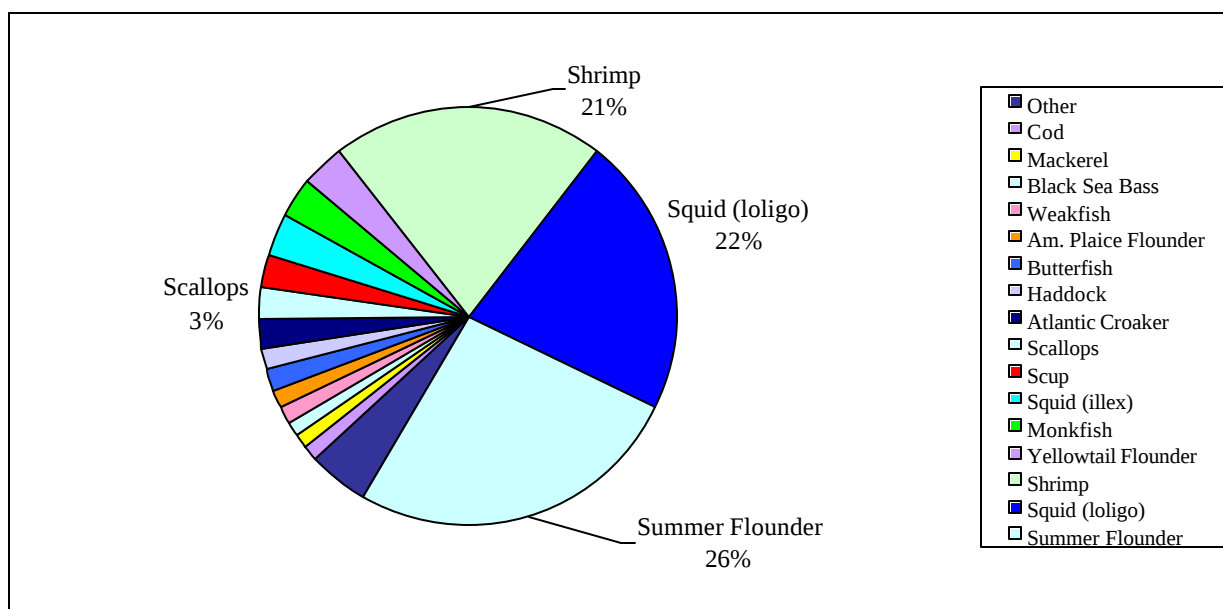


Figure 17. Composition of total landed value by species, for occasional vessels in the 1999 fishing year (dealer weigh-out data).

Even at a gross regional scale (see Section 3.5.4 for more details on port communities), as shown in Figure 18, significant differences do exist between these three categories of limited access vessels. The full-time category is composed mainly of dredge vessels, with almost 93% of full-time permits stating dredge as primary gear; moreover, almost half of the full-time boats are New England dredge boats. Among part-time boats, however, 84% claim the Mid-Atlantic as the principal port region, and over half of the part-time boats claim net as primary gear. This is also true of the occasional vessels, with almost 80% claiming Mid-Atlantic ports and the primary use of net gear. It should be noted, however, that actual gear used, as recorded in logbooks, and can differ from the primary gear type listed in the permit files.

Vessel permit data also provides information on the number of berths a vessel has, though the number of crew actually working on any given trip varies from gear to gear, port to port, and season to season, regardless of berth size. Table 29 shows the breakdown for limited access vessels of berth size, as well as trip-level data for the number of crew (these columns are unrelated). Slightly over half of all trips supplying vessel trip reports show a crew of seven, the maximum allowed by current regulations.

A closer look, however, gives some indication of the variability in crew size. Figure 19 illustrates, for example, a slight and more consistent tendency for larger crew sizes on net boats.

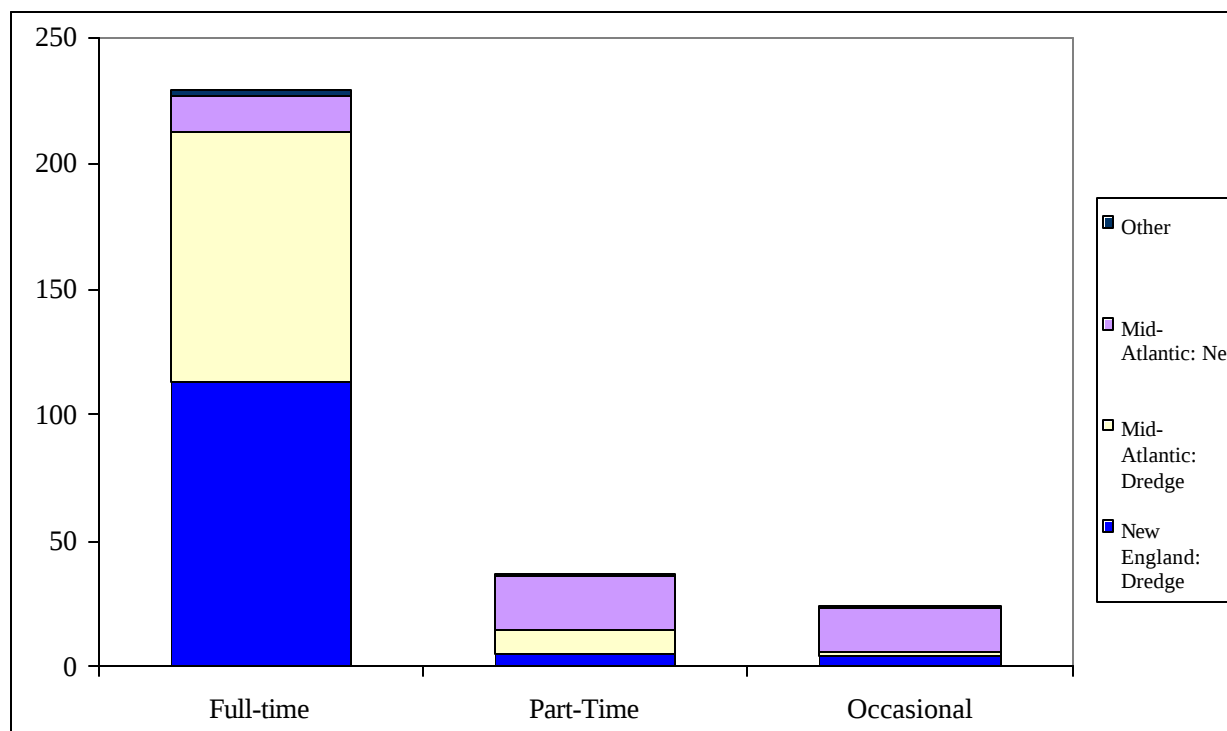


Figure 18. Limited access categories, by principal port region and type of gear, 1999 permit data.

Table 29. Berth size (1999 permit data) and scallop trip crew size (1999 logbook data¹¹), limited access vessels.

Number of Berths	Number of Vessels with that Berth size	Percent of Vessels with that Berth Size	Number of Crew per trip	Number of Trips with that crew size	Percent of Trips using that crew size
1	0	0%	1	5	0.2%
2	3	1%	2	20	0.8%
3	16	5.5%	3	92	3.8%
4	27	9.3%	4	192	7.9%
5	15	5.2%	5	251	10.3%
6	10	3.4%	6	605	24.9%
7	122	42.1%	7	1261	51.9%
> 7	97	33.5%	>7	3	0.1%

¹¹ Partial fishing year; logbook data for January and February 2000 are currently unavailable.

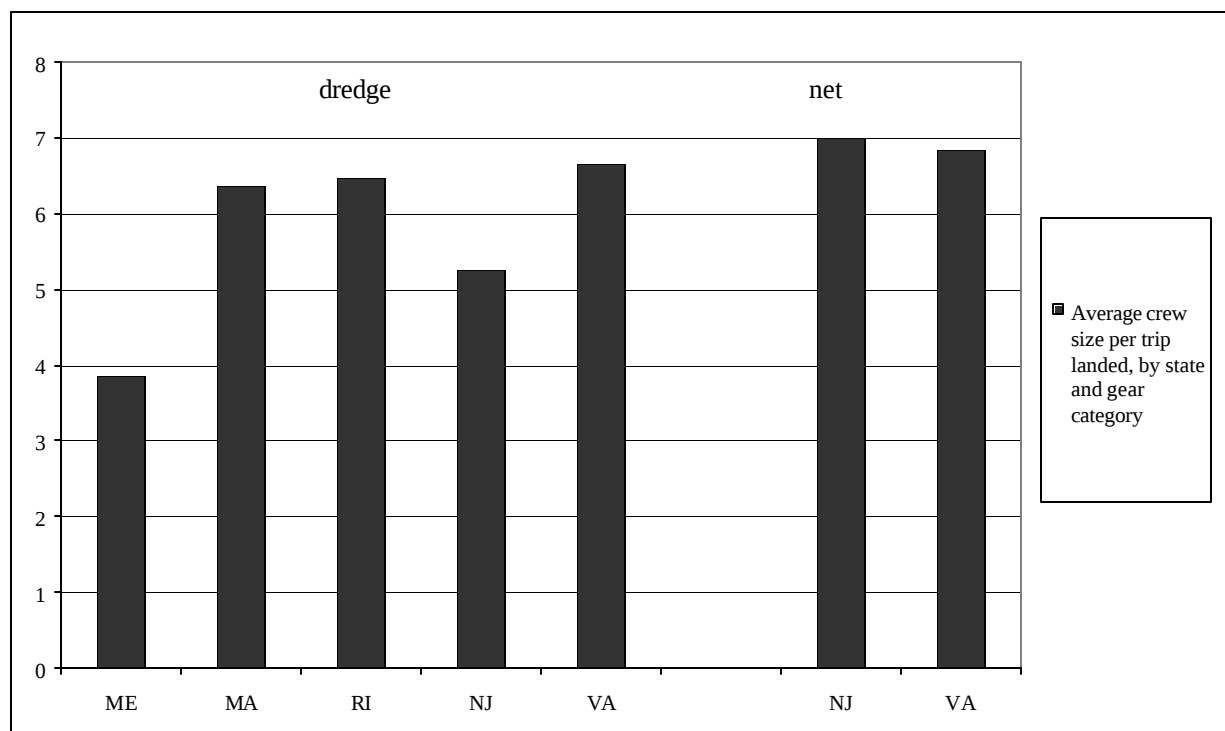


Figure 19. Crew numbers on limited access scallop trips, partial 1999 fishing year¹².

Figure 20 shows average (trip-level) crew size by principal ports of landings (Section 3.5.2). The fact that different ports show different fishing practices—here, in terms of crew size and effort-days—despite apparent similarities like gear type or vessel size, should caution management decision-makers to consider the human environment broadly in order to account for the differential impact that fishing regulations may have. However, while the factors that help illuminate such differential fishing practices are essential for understanding impacts, they are best furthered by a commitment to ethnographic research.

Figure 21 provides a rough breakdown of average scallop landings and values by state landed, comparing scallop otter trawl boats and scallop dredge boats. These differences reflect in part the extent to which different vessels depend on scallops for their revenue, as previous sections have indicated. Yet, these numbers tell other stories as well; Figure 22 shows how this average dockside value from scallops looks when it is broken down in an approximation of boat and crew shares and daily “income.”

¹² Jan. and Feb. 2000 logbook data currently unavailable

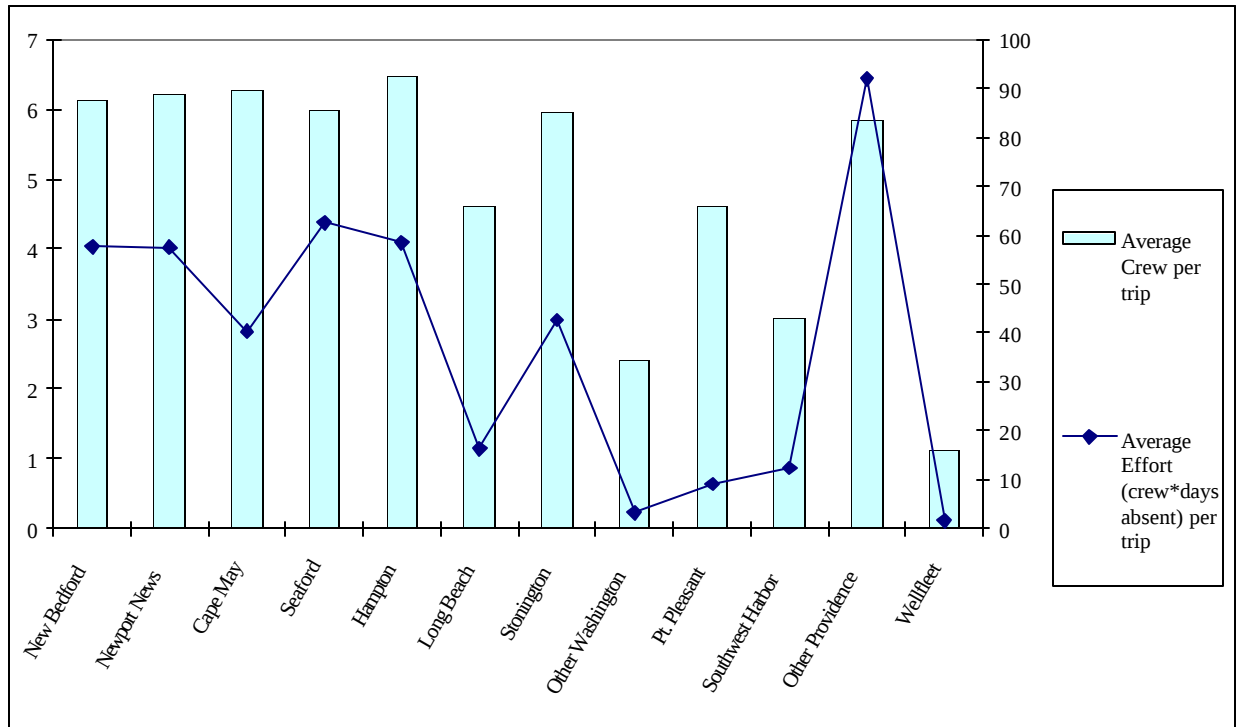


Figure 20. Average crew size and effort on trips landing scallops, by top scallop ports, 1999 calendar year.

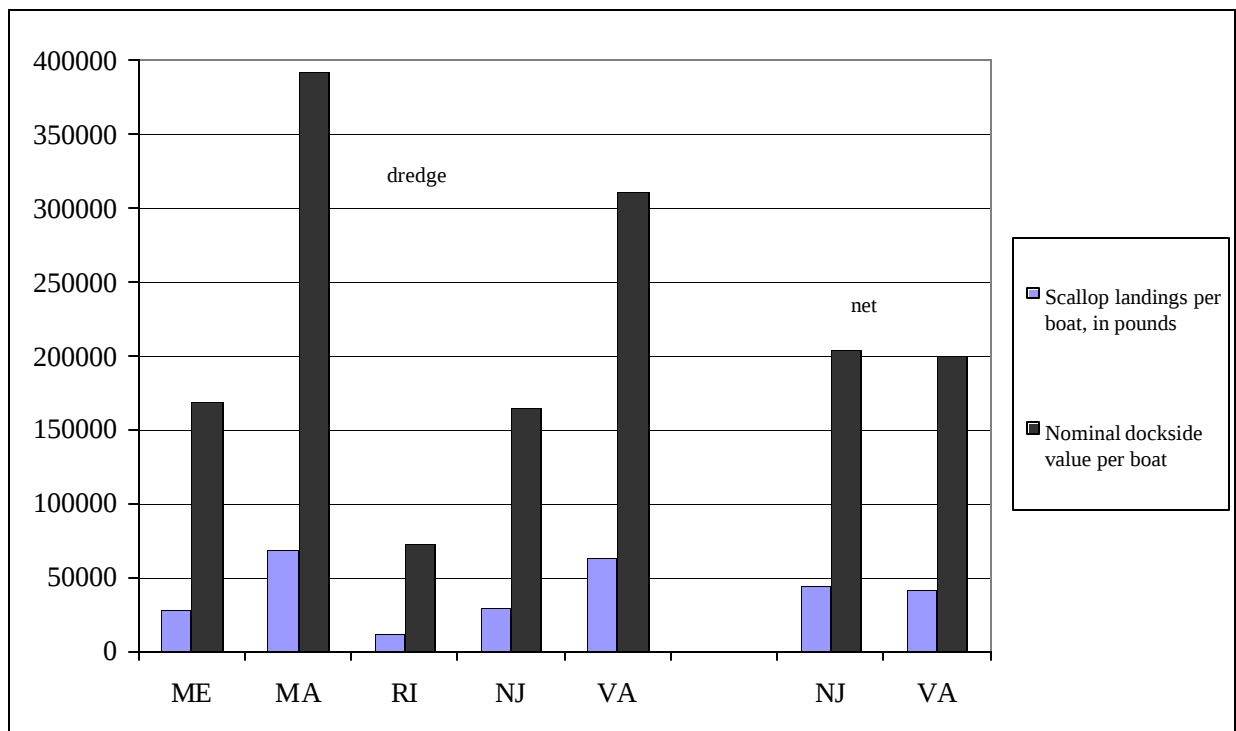


Figure 21. Scallop landings and value per boat, 1999 fishing year (1999-2000 weigh-out data).

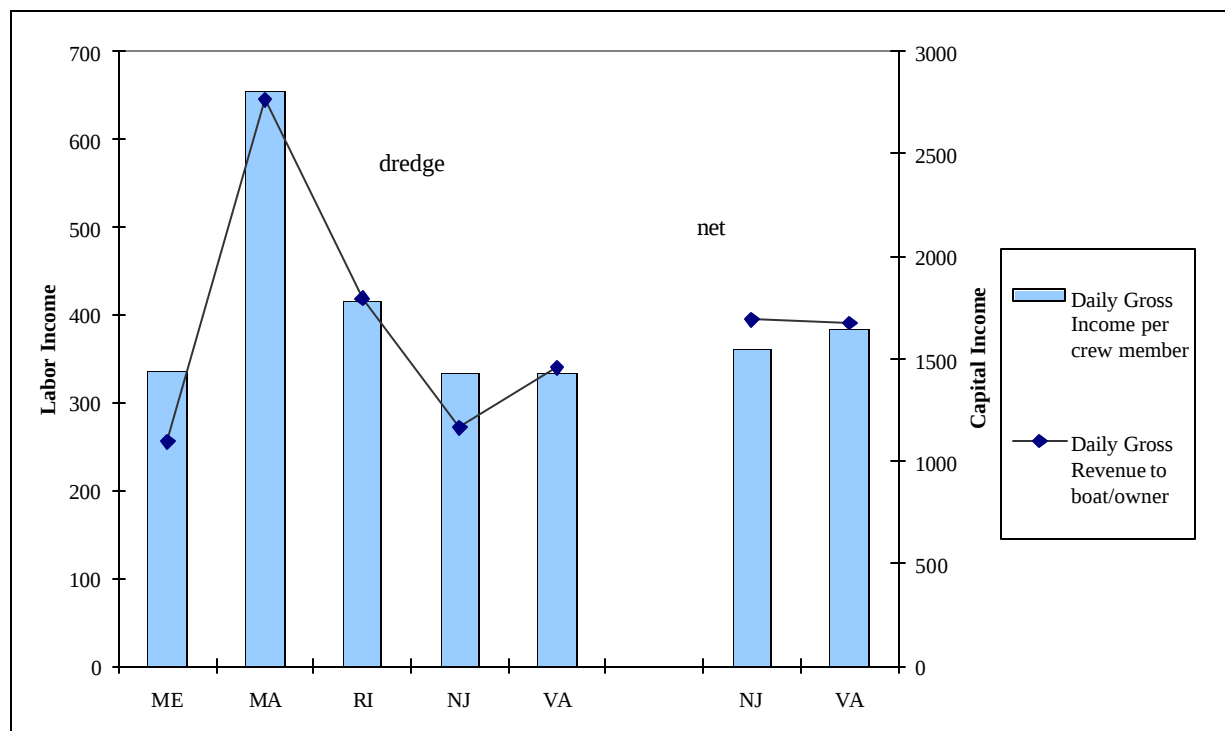


Figure 22. Labor and capital gross incomes (assuming lay system and 60/40 split between crew and boat), from weigh-out and logbook data, partial 1999 fishing year (Jan. and Feb. 2000 logbook data not available).

These figures are not intended to represent actual revenues or scallop dependence, since they do not show revenue from other fisheries. Nor should they be taken as a literal indication of crew or boat incomes, since they assume a 60/40 split between crew and owner and show only gross income (for example, they do not take into account trip expenses and whether they are deducted before the split or after, which can have a significant effect on income distributions). However, they do tell an important story often not apparent in figures of total landings, namely one that attempts to show the influence that crew size and days absent at sea has on the crew's actual annual income, and ultimately on the social impacts that reverberate in the communities in which crew members participate.

Limited access scallop vessels participate in many other fisheries as well. Two different sources of information give some indication of the range of fishing activities which scallop vessels either do or may participate in: permits held and actual catch landings. Table 31 and Table 31 show the other fishery permits held by both full-time and part-time limited access scallop vessels.

Table 32 shows pounds landed of different species of fish by the different categories of limited access vessels. This table and the previous graphs (Figure 15 to Figure 17) showing species by landed value both give an indication of how different categories of limited access vessels engage in different styles of fishing.

Table 30. Other 1999 permits held by full-time scallop limited access vessels.¹³

Permit Groupings	Northeast Region Permit Status	Number of Vessels	Percent of Full-Time Limited Access Scallopers
By Individual FMP	Summer Flounder	203	88.6%
	Multispecies	200	87.3%
	Monkfish	195	85.2%
	Dogfish	194	84.7%
	Squid-Mackerel-Butterfish	180	78.6%
	Surf Clam	175	76.4%
	Ocean Quahog	160	69.9%
	Lobster	156	68.1%
	Black Sea Bass	77	33.6%
	Scup	71	31.0%
	Scallop-General	7	3.1%
By Common Combinations (10 vessels or more)	All 11 permits (not including Scallop-General)	21	9.2%
	Scallop, Dogfish, Lobster, Monkfish, Multispecies, Ocean Quahog, Squid-Mackerel-Butterfish, Summer Flounder, Surf Clam	58	25.3%
	Scallop, Dogfish, Monkfish, Multispecies, Ocean Quahog, Squid-Mackerel-Butterfish, Summer Flounder, Surf Clam	10	4.4%

Table 31. Other 1999 permits held by part-time scallop limited access vessels.¹⁴

Permit Groupings	Northeast Region Permit Status	Number of Vessels	Percent of Part-Time Limited Access Scallopers
By Individual FMP	Multispecies	35	94.6%
	Summer flounder	33	82.9%
	Squid-Mackerel-Butterfish	31	83.8%
	Dogfish	30	81.1%
	Scup	29	78.4%
	Black Sea Bass	25	67.6%
	Monkfish	25	67.6%
	Lobster	20	54.1%
	Surf Clam	16	43.2%
	Ocean Quahog	15	40.5%
	Scallop-General	4	10.8%
	All 11 permits (not including Scallop-General)	2	5.4%
By Common Combinations (3 vessels or more)	Scallop, Black Sea Bass, Dogfish, Lobster, Monkfish, Multispecies, Scup, Squid-Mackerel-Butterfish, Summer Flounder	5	13.5%

¹³ Since most vessels hold more than one permit, total number of permits is higher than total number of vessels.

¹⁴ Since most vessels hold more than one permit, total number of permits is higher than total number of vessels.

Table 32. Alternative fisheries engaged in by limited access scallop vessels, 1999 fishing year, 1999-2000 weigh-out data.¹⁵

Species	Full-Time		Part-Time		Occasional	
	Pounds Landed	Percent of Total	Pounds Landed	Percent of Total	Pounds Landed	Percent of Total
Scallops	20347153	0.27287	879116	0.04447	15950	0.00461
Bluefish	45720	0.00061	69193	0.0035	11224	0.00324
Butterfish	47393	0.00064	101877	0.00515	89585	0.02588
Surf Clam	0	0	2156786	0.1091	0	0
Cod	402624	0.0054	49233	0.00249	21731	0.00628
Horseshoe Crab	34210	0.00046	122320	0.00619	104534	0.0302
Atlantic Croaker	88288	0.00118	249066	0.0126	297098	0.08583
Dogfish	57546	0.00077	413663	0.02092	63092	0.01823
Black Drum	95525	0.00128	176	0.00001	2919	0.00084
Am. Pl. Flounder	130818	0.00175	91910	0.00465	27058	0.00782
Summer Flounder	2286593	0.03066	1104583	0.05587	457518	0.13218
Winter Flounder	169301	0.00227	6662	0.00034	4927	0.00142
Witch Flounder	130790	0.00175	38300	0.00194	21967	0.00635
Yellowtail Flounder	452888	0.00607	44704	0.00226	62852	0.01816
Haddock	319293	0.00428	43415	0.0022	33183	0.00959
Silver Hake	191719	0.00257	24827	0.00126	32619	0.00942
White Hake	28814	0.00039	32870	0.00166	1716	0.0005
Herring	38026347	0.50996	0	0	0	0
Lobster	59595	0.0008	4305	0.00022	147	0.00004
Atlantic Mackerel	165919	0.00223	276167	0.01397	439724	0.12704
Menhaden	4059798	0.05444	11649192	0.58924	2979	0.00086
Monkfish	3035269	0.0407	183852	0.0093	40704	0.01176
Pollock	61471	0.00082	16290	0.00082	4797	0.00139
Red Porgy	19275	0.00026	0	0	0	0
Ocean Quahog	0	0	10750	0.00054	0	0
Redfish	11668	0.00016	12960	0.00066	1676	0.00048
Scup	217061	0.00291	102201	0.00517	60480	0.01747
Black Sea Bass	188921	0.00253	134275	0.00679	20871	0.00603
Penaeid Shrimp	5395	0.00007	279742	0.01415	155609	0.04496
Skates	223207	0.00299	26306	0.00133	13488	0.0039
Illex Squid	112128	0.0015	9252	0.00047	482467	0.13938
Loligo Squid	3457239	0.04636	1452152	0.07345	848973	0.24527
Weakfish	28016	0.00038	124749	0.00631	101564	0.02934
King Whiting	1622	0.00002	21762	0.0011	7062	0.00204
Wolfish	10292	0.00014	0	0	201	0.00006
Other	55733	0.0009	37079	0.00188	32701	0.00944
Total	74,567,631	100%	19,769,735	100%	3,461,416	100%

Full-time vessels are, unsurprisingly, the most focused on scallops, while occasional vessels, and to a lesser extent the part-time vessels, show a more flexible pattern of fishing, often associated with

¹⁵ Only species with landed pounds greater than 10,000 lbs by at least one of the categories are listed.

“traditional” or smaller-scale fishing enterprises. This should not be taken as implying, however, that scallops are any less important to occasional and part-time vessels than they are for full-time ones. As mentioned above, these different categories of limited access vessels and fishers, with their different patterns of fishing style, are also associated with different gear types, with different principal and home-port regions, and, as shown below, with different fishing grounds. How, and to what extent, these factors are related requires further ethnographic research to be done in the future.

This question of who fishes where is one of great importance for a number of different issues, not least of which are particular management options such as area-based management. Table 34 and Table 34 give some indication of the different statistical areas of importance for different user groups. Table 34 shows the important scallop areas for limited access boats, and Table 34 shows them for General Category boats (not including the limited access vessels that also have general category permits).

Table 33. Percent of landed pounds per areas accounting for 5% or more of total scallop landings by scallop limited access boats¹⁶; 1997 - 1999 logbook data.

Statistical area	1997 Fishing Year	1998 Fishing Year	1999 Fishing Year ¹⁷
521	19.0%	13.2%	6.8%
525	6.9%	7.9%	5.1%
526	<5%	5.8%	<5%
561	5.1%	<5%	<5%
562	<5%	<5%	26.2%
613	11.9%	11.3%	<5%
615	9.1%	6.7%	9.1%
616	9.2%	<5%	<5%
621	<5%	9.5%	7.8%
622	5.6%	<5%	7.2%
626	<5%	11.2%	9.5%
Total Trips With Area Reported	3138	3030	2702

Table 34. Percent of landed pounds per areas accounting for 5% or more of total scallop landings by scallop general category boats¹⁸; 1997 - 1999 logbook data.

	1997 Fishing Year	1998 Fishing Year	1999 Fishing Year* (partial)
511	7.3%	8.0%	12.2%
512	18.2%	16.5%	12.6%
513	8.8%	<5%	<5%
514	53.7%	24.0%	40.9%
521	<5%	<5%	8.1%
525	<5%	5.7%	<5%
622	<5%	29.8%	<5%
Total No. Trips With Area Reported	3564	2865	1577

The 1999 opening of Closed Area II to limited access boats accounted for over ¼ of landed pounds, with an apparent though slight shift away from more coastal grounds. General Category landings still show landings predominantly from statistical areas that border the coast. Looking at the limited

¹⁶ Only trips that identified an area of catch are included.

¹⁷ 1999 fishing year contains only March 1, 1999 -December 31, 1999 data; logbook data for January and February 2000 are currently incomplete.

¹⁸ Only trips that identified an area of catch are included.

access fleet in more detail, though, shows differences in the use of fishing grounds. As shown in Figure 23, 2/3rd of the boats found in Closed Area II (statistical area 562) are full-time. This figure coupled with Table 35 shows how occasional vessel scallop trips are found almost entirely in Mid-Atlantic areas that border the coast, part-time vessels are largely found there, while full-time vessels are less dependent on them.

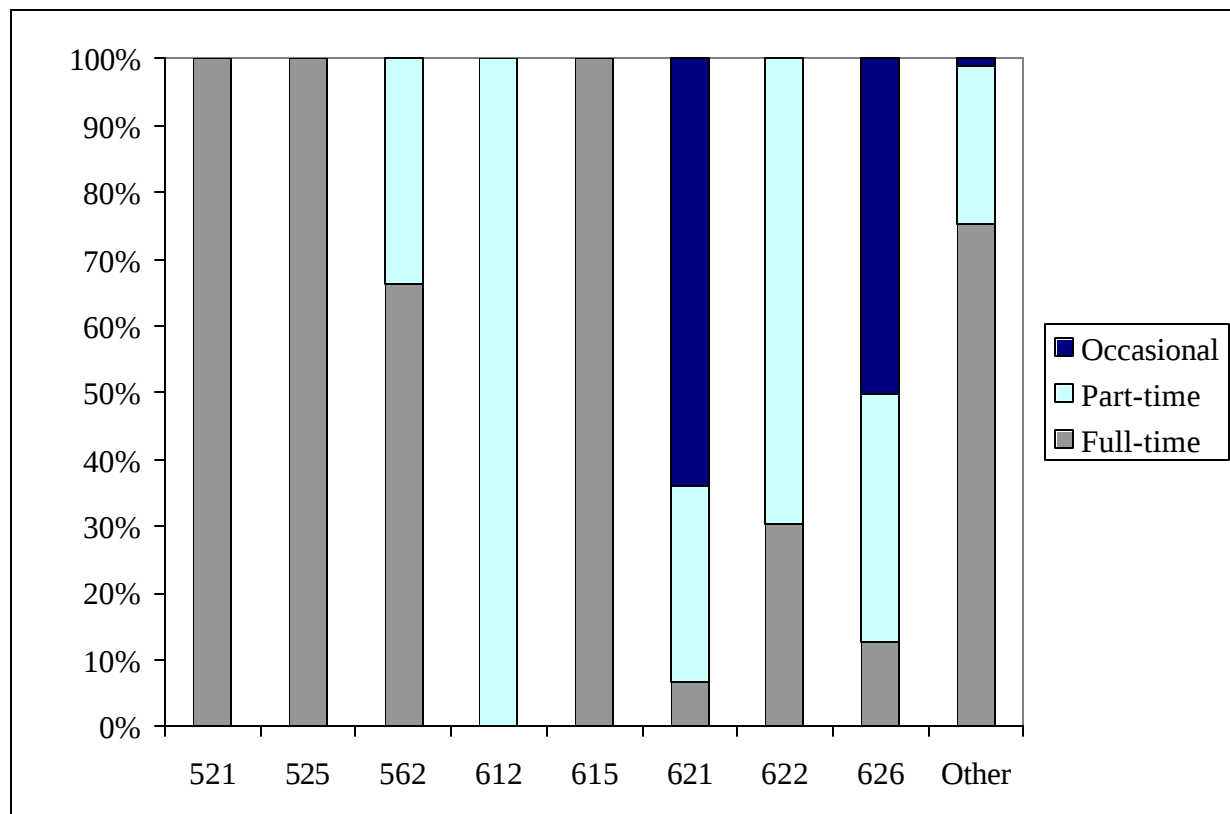


Figure 23. Distribution of full-time, part-time and occasional limited access vessels, by statistical area fished, partial 1999 fishing year¹⁹.

Table 35. 1999 Fishing year, percent of landed pounds per areas accounting for 5% or more of total scallop landings by categories of limited access vessels; 1999 logbook data.

	521	525	562	612	615	621	622	626	Other
Full-time	0.07077	0.05147	0.26727		0.09445	0.06859	0.06837	0.08827	0.29081
Part-time			0.13663	0.06035		0.2994	0.15711	0.25637	0.09014
Occasional						0.65		0.34529	0.00471

3.5.2 Principal Ports

¹⁹ Only areas that accounted for at least 5% of scallop landings for at least one of the limited access categories are shown. January and February 2000 logbook data are currently unavailable.

While the fleet spreads throughout the eastern seaboard, the majority of limited access vessels are found (whether by homeport state or principal port state) in just four states: Massachusetts, Virginia, New Jersey, and North Carolina (Table 36).

Table 36. Distribution of active (non-history) scallop limited access vessels by state, 1999 permit data.

	AK	AL	CT	DE	FL	MA	MD	ME	NC	NJ	NY	PA	RI	TX	VA	WV
Permits by Homeport state	1	1	2	2	4	101	2	7	35	39	5	8	6	1	75	1
Permits by PPST ²⁰	0	0	5	0	3	101	2	8	38	43	0	3	9	0	78	0
Average Length in feet, PPST			80		83	86	69	51	74	78		64	92		79	
Average GRT by PPST			156		133	170	84	55	115	138		94	182		141	

A slightly different pattern appears among the general category permits, where the majority are located in Massachusetts, Maine, New York, New Jersey, and Rhode Island (Table 37). Although these permits are active (i.e. not history permits) they may not be actively fishing, i.e. contributing to landings in either the dealer data or the logbook data.

Table 37. Distribution of active general category vessels by state, 1999 permit data.

	A K	CT	DE	FL	GA	M A	M D	M E	NC	NH	N J	N Y	PA	R I	SC	TX	VA	W V
Permits by Homeport state	0	23	10	4	1	943	8	422	43	76	145	186	33	125	1	1	56	16
Permits by PPST ²¹	1	31	7	0	1	840	10	503	48	88	181	165	1	163	1	0	49	1
Average length in feet, PPST	112	51	37		58	44	54	42	66	39	52	50	60	55	47		48	38
Average GRT, by PPST	179	54	11		38	36	41	28	92	17	55	50	79	66	33		35	17

Table 38 breaks down homeport state into more detail for the limited access fleet: New Bedford MA, Norfolk VA, and Cape May NJ are the ports with the highest number of permitted vessels (See also Table 40 and Table 41 for ports of landing and homeports by landed value). Vessel permit data does not provide information on the structure of fleet ownership or the extent of multiple boat ownership, nor does it provide information on owner-operation, hampering the extent to which one can gauge how a “community” may or may not be broadly affected by management decisions.

Table 38. Distribution of active scallop limited access vessels by individual homeport, 1999 permit data²².

State	Homeport	Number of Vessels	State	Homeport	Number of Vessels	State	Homeport	Number of Vessels
AK	Other	1	ME	Other	7	PA	Philadelphia	8
AL	Other	1	NC	Lowland	8	RI	Davisville	4
CT	Other	2		New Bern	6		Other	2
DE	Other	2		Oriental	5	TX	Other	1

²⁰ Principal Port state

²¹ Principal Port state

²² Ports with 3 or fewer vessels each are grouped under other within each state.

State	Homeport	Number of Vessels	State	Homeport	Number of Vessels	State	Homeport	Number of Vessels
FL	Other	4		Other	17	VA	Hampton	7
MA	Boston	13	NJ	Barneget Light	6		Newport News	18
	Fairhaven	10		Cape May	29		Norfolk	41
	New Bedford	72		Other	4		Other	8
	Other	6	NY	New York	5	WV	Other	1
MD	Other	2						

Vessel permit data indicates that for many vessels, not only are homeport and the principal port of landing different, they may also be in different states (Table 39). Moreover, many vessels land their catch at different ports, at different times of the year.

Table 39. Active permit scallop limited access vessel landing patterns, 1999 permit data,

Homeport State	Percent where homeport = primary port	Percent where homeport state = primary port state	Homeport State	Percent where homeport = primary port	Percent where homeport state = primary port state
AK	0%	0%	NC	56%	81%
AL	0%	0%	NJ	77%	82%
CT	100%	100%	NY	0%	0%
DE	0%	0%	PA	0%	0%
FL	25%	50%	RI	83%	100%
MA	82%	97%	TX	0%	0%
MD	100%	100%	VA	39%	88%
ME	57%	100%	WV	0%	0%

The relation between these different geographies has significance for understanding the terrestrial communities to which fishing boats and their crew belong, the mutual influences between communities—as places for socialization and social organization—and the impacts of management, and the different forms of ecological knowledge communities that fishers may inhabit. The use below of a monetary yardstick should not be taken to imply a neutral, asocial indicator of value, separate from the production of social meaning, but rather as a rough indicator of the spatiality of economic activity. Table 40 and Table 41 summarize two different ways of trying to gauge activity levels of terrestrial ports: ports of landing and homeports. Table 40 lists the top ten ports in terms of scallop dockside value, and its percentage to total value. Together, these ports account for 97% of the scallop landings reported in the weigh-out data.

Table 40. Top scallop ports by landed value, 1999 fishing year, 1999 - 2000 weigh-out data

Port	1999 Value in US Dollars	Percentage of Scallop Value to Total Landed Value, 1999	Percentage of Scallop Value to Total Landed Value, 1997
1. New Bedford, MA	\$70,662,041	53.7 %	43.6 %
2. Newport News, VA	\$15,207,152	79.8 %	73.4 %
3. Cape May, NJ	\$9,808,359	44.4 %	28.8 %
4. City of Seaford, VA	\$6,539,705	98.1 %	94.9 %
5. Hampton, VA	\$5,083,750	61.5 %	47.1 %
6. Long Beach, NJ	\$4,001,405	29.9 %	30.8 %
7. Stonington, CT	\$2,985,708	38.1 %	38.8 %
8. Point Pleasant, NJ	\$1,849,563	11.0 %	13.0 %
9. Other Washington, ME	\$1,678,178	13.3 %	19.3 %
10. Southwest Harbor, ME	\$1,366,233	33.6 %	40.1 %

19. Other Providence, RI ²³	...	...	...
	\$111,988	27.8%	n/a
36. Wellfleet, MA	\$23,357	33.9%	23.1 %

The top ten ports have stayed relatively consistent in recent years, with New Bedford MA dominating. A slightly different picture emerges when one looks at the ports that boats call their “homeports,” as in Table 41. As a note of definition, permit applications ask boat-owners to supply their principal landing port, their homeport, and the owner address. Nevertheless, boats might land their catch at many different ports other than their stated principal ones, and the owner address might be a residential or business one, such as a settlement house. Moreover, while there is a close connection between homeport and port of landing, and Section 3.5.2 shows, not all ports do or can buy scallops. This and other factors (for example, when vessels are not owner-operated) result in there being many places that constitute the communities of fishers, their fishing practices and understandings, as well as feel the impact of fishery management regulations. Table 41, however, examines only homeports that had at least four federally-permitted boats (i.e. in the permit files), and the activity of these boats as recorded in the dealer data. Thus, it should not be taken to represent the full universe of fishing, since boats fishing in state waters, boats with state permits only, or states that collect dealer data by canvassing in which permitted boats are lumped together, are not traceable in these sources of data. Under the circumstances, however, homeports may be thought of as one, albeit rough, way of grounding different kinds of places and communities to which federally-permitted scallop fishers belong. Here too, New Bedford dominates the picture, but there are also some significant differences with an analysis based on ports of landing. In terms of dockside value, for example, the unincorporated city of Seaford, Virginia has the fourth largest landed value, and scallops account for almost the entirety of its landed value. Nevertheless, Seaford isn’t a significant homeport. Rather, ports in North Carolina (which don’t appear in the ports of landing at all) like New Bern appear significant. A fuller appreciation of the human environment—such as relations between homeport, port of landing, and fishing grounds, as well as other sources of valuing a dependence and connection to particular fisheries like scallops—would require additional commitment to an ethnographic research program.

Table 41. Top scallop homeports²⁴ by associated landed value, 1999 fishing year, permit and weigh-out data.

Homeport	1999 Value in U.S. Dollars	Percentage of Scallop Value to Total Landed Value, 1999	Percentage of Scallop Value to Total Landed Value, 1997	Percentage of Scallop Value to Total Landed Value, 1990 ²⁵
1. New Bedford, MA	\$39,042,579	57.6%	48.5%	59.9
2. Norfolk, VA	\$14,764,543	73.0%	69.9	47.7
3. Cape May, NJ	\$9,485,145	40.3%	32.9	30.9
4. Newport News, VA	\$9,017,153	89.1%	91.6	93.8
5. Boston, MA	\$6,882,739	11.3%	8.3%	16.4
6. Fairhaven, MA	\$5,881,597	77.0%	78.1	85.0
7. Barnegat Light, NJ	\$3,705,844	31.3%	48.5	42.9
8. Hampton, VA	\$3,703,562	96.3%	88.4	95.5
9. New Bern, NC	\$2,322,089	85.0%	61.2	94.4
10. Davisville, RI	\$2,285,164	48.3%	n/a	n/a

²³ Other Providence, RI and Wellfleet, MA are the only ports not in the top ten ports by absolute landed value, for which scallops accounted for greater than 20% of their total landed value during the 1999 fishing year.

²⁴ Only homeports with four or more federally-permitted boats actively fishing (i.e. showing landings in the dealer weigh-out data) were included. Homeports were corrected for typographical errors, and alternate place-names were grouped accordingly.

²⁵ 1990 was the first year in which the majority of permit records list homeport; in 1990, 98% of permits listed their homeport, while in 1989 only 13% did.

...	...	...		
12. Oriental, NC ²⁶	\$1,627,071	57.1%	n/a	82.5
15. Lowland, NC	\$963,184	57.9%	n/a	78.4
18. Southwest Harbor, ME**	\$763,423	77.0%	79.1	78.0

3.5.3 Dealers and Processors

Since Amendment 4, dealers possessing Atlantic Sea Scallops, whether caught by limited access vessels or general category ones, are required to hold a dealer permit. Table 42 shows the breakdown of all active dealers by state; over 2/3rd of all federally licensed scallop dealers are found in Maine and Massachusetts alone. Table 43 and Table 44 show the extent to which dealers holding scallop licenses are dependent on scallops in particular. Table 43 shows that 2/3 of all active scallop dealers show between zero and five percent dependence on scallops for their business; on the other hand, nearly nine percent of scallop dealers show a heavy dependence, of 96-100%, on only scallops. Table 44 shows dependence in terms of absolute value, i.e. in dollars paid to harvesters.

Table 42. Number of dealers by state²⁷. Only those who actually bought scallops in 1999 are included.

State	MA	MD	ME	NC	NH	NJ	NY	RI	VA
Dealers	52	1	54	5	2	13	13	5	8

Table 43. Scallop dealers, percent dependence on sea scallops as measured by amount paid to harvesters. Only dealers who actually bought scallops in 1999 are included.

Percent Dependence	Number of Dealers (N=153)	Percent of Dealers	Percent Dependence	Number of Dealers (N=153)	Percent of Dealers
0-5%	102	66.7%	51-55%	0	0.0%
6-10%	9	5.9%	56-60%	1	0.7%
11-15%	9	5.9%	61-65%	0	0.0%
16-20%	8	5.2%	66-70%	1	0.7%
21-25%	3	2.0%	71-75%	1	0.7%
26-30%	3	2.0%	76-80%	0	0.0%
31-35%	1	0.7%	81-85%	0	0.0%
36-40%	0	0.0%	86-90%	0	0.0%
41-45%	0	0.0%	91-95%	1	0.7%
46-50%	1	0.7%	96-100%	13	8.5%

Table 44. Scallop dealers, absolute dependence on sea scallops as measured by amount paid to harvesters. Only dealers who actually bought sea scallops in 1999 included.

Dollars Paid to Harvesters for Scallops	Number of Dealers (N=153)	Percent of Dealers
\$1-100	7	4.6%
\$101-1000	39	25.5%
\$1001-10,000	49	32.0%
\$10,001-50,000	28	18.3%
\$50,001-100,000	8	5.2%
\$100,001-500,000	12	7.8%
\$500,001-1,000,000	2	1.3%

²⁶ Oriental and Lowland, NC were the only ones not in the top ten home-ports by 1999 landings value, but who were in the top ten home-ports by percentage of scallop/total value in 1999.

²⁷ Of the 153 scallop dealers, 5 buy in two states each. These dealers were assigned to the state where over 50% of their scallop value was generated.

Dollars Paid to Harvesters for Scallops	Number of Dealers (N=153)	Percent of Dealers
\$1,000,001-5,000,000	8	5.2%
\$5,000,001-10,000,000	0	0.0%

Table 45 shows the number of scallop processors by state. Since only one state had more than three firms, confidentiality requires that processor data be kept at a regional level. Among processors, average monthly employment for a given firm in the region was 93, varying from five employees to 251; average monthly employment by state in the region was 176, varying from 5 to 848 employees. States in the region processed 6,172,713 pounds of scallops with a value of 32,941,173 dollars. Pounds processed ranged in the different states from 151 to 3,746,597 with an average of 324,880 per firm; value ranged from 630 to 19,934,117 with an average of 1,733,746 per firm.

Table 45. Number of scallop processors by state.

State	CT	MA	MD	ME	NC	NH	NJ	PA	RI	VA
Processors	1	7	2	2	1	1	1	1	2	1

3.5.4 Fishing Communities

For many social science disciplines, it is axiomatic that space is social: socially used, socially organized, and in that sense socially produced. Moreover, places aren't isolated but are connected in networks of relations through collective activity over time. Nevertheless, the question of how to interpret a spatial construct like the community, and what analytical weight to give it, is a matter of scholarly debate. For human environment descriptions and social impact assessments for fishery management acts, per the Magnuson-Stevens reauthorization and its legally accepted interpretation, the community is to be considered a geographical place. National Standard 8 defines a fishing community in more detail, stating it is "a community which is substantially dependent on or substantially engaged in the harvesting or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community." Yet the weigh-out data and the permit files list ports, and while they may be the same places where people live, where specific styles of and knowledge about fishing are practiced, and where the impacts of management are most strongly felt, they are not necessarily the same. Moreover, the ownership structure of the scallop fleet—to what extent boats are owner-operated or boats are part of larger, corporately-owned fleets—is difficult to judge from the permit files. Thus to assess what and where the "communities" are would require a broad-based ethnographic research program aimed at these questions. In the absence of such a program directed at scallopers, the general demographic profiles²⁸ and economic characteristics of landing ports and homeports that follow have taken the strategy to describe the human environment that characterizes participants in the 1999 scallop fishery (where communities are based on scallop landed value as well as the percentage of scallops to total landed value), without necessarily ascribing to a set notion of dependence or any analysis of a historical connection to scalloping. The analyses draw on census data (which, unless otherwise noted, come from <http://factfinder.census.gov>, July 2000); other aspects of community description come from data sources such as the logbook data, and ethnographic reports and community profiles (where available). Together these strive to give a picture of the communities identified in the previous section, and to demonstrate the variety of fishing styles and practices extant in the scallop fleet.

²⁸ The variables listed in the following section are traditional demographic variables, yet their significance comes only in the ways they are socioculturally constructed, including such apparently "biological" variables such as race (see the American Anthropological Association's statement on race: <http://www.aaanet.org/stmnts/racepp.htm>). Such on-the-ground import cannot be directly gleaned from census or other "top-down" reports.

Logbook records are used for the following port profiles, since they are a source of information on such fishing practices as fishing grounds, crew size, and days absent on fishing trips. However, logbook data does not link well to dealer data, so kept pounds rather than dockside value is used, which can give a distorted financial picture of communities that land low-value species like herring. There is also the additional problem with scallops that they may be landed shucked or in the shell; a random examination of the logbook records showed that while fishermen consistently and carefully recorded when they landed scallops in the shell or shucked, the entry of that data did not always differentiate the two different categories. While the following analysis has tried to correct those errors when possible, the overall magnitude of these problems is unknown, so that some fishing areas, some gear groups (such as net boats, which have traditionally landed scallops in the shell), and some fishermen (such as boats with small crews and/or general category boats) may show an overstated amount of scallops caught. Again, it should also be noted that the use of federal logbook data misses those fishers using states licenses, those fishing in state waters, and other exceptions to the filing of logbook details. Thus, the community profiles do not represent the universe of fishing activity, but a portion of it. Unfortunately, dealer data for some of the communities profiled below reported activity not by individual boat but by lumped category of boats, so that filling out the fleet profiles with this source of information was not consistently possible. Fleet profiles may differ by community when subgroups—e.g. gear users, or permit categories—contain less than four entities, in which case certain kinds of financial information must be aggregated to protect anonymity²⁹. Moreover, for ease of analysis, when a permit had both limited access and general category, its activity is listed with limited access only; this affected only a few vessels.

In the following analyses, tables showing a community's common fisheries by quarter include only those species caught by permitted scallop vessels (both limited access and general category) but do not include other fishermen from that community.

3.5.5 Geographic Area: Southwest Harbor town, Hancock County, Maine

3.5.5.1 General Demographic Profile

From the 1990 Census, the population of Southwest Harbor was 1,952, of which 100% were considered to live in rural areas. Forty-eight percent of the population was male and 52% were female. Approximately 59 % of the town was between 18 and 65 years of age; 23.6 % of the population was 18 years and under, and 17.3 % was 65 years or older. 86.3% of the population graduated from high school, while 26.5% had a bachelor's degree. 99.5% of the population was white, with the remaining 0.5% from American Indian, or Aleut; Asian or Pacific Islander; or other designations. 0.5% of the population reported being Hispanic. Of the ethnic categories reported in the census, which account for at least 5% of the population, English dominated (31%), followed by Irish (16%), "American" (9%), German (8%), French (6%), and Scottish (6%). 63% of the population was born in Maine, while 2% of the population was born outside of the U.S.; 6% of those older than 5 speak a language other than English. There were 846 households, of which 52.4% were married-couple families, 1.8% were male-householder families, 9.3% were female-householder families, and 36.5% were non-family households. The average number of people per household was 2.28.

3.5.5.2 Economic Characteristics

²⁹ Any of the following that comes from the logbook is for partial fishing year 1999, i.e. March 1999 through December 1999, since January and February 2000 logbook data are not yet readily available

Sixty-seven percent of the population in general, aged 16 years and older, was in the labor force, of which 5.0% were unemployed and 4.7% were in the armed forces. By gender, however, 80.4% of male residents were in the labor force, of which 2.2% were unemployed and 7.2% were in the armed forces. For women, 55.3% were in the labor force, of which 8.6% were unemployed and 1.4% were in the armed forces. The median household income was \$25,290, with a per capita income of \$13,334. Thirteen percent of the people for whom poverty status was determined in 1989 fell below the poverty level. Table 46 shows the relative proportions of industry for Southwest Harbor.

Table 46. Employed persons 16 years and older, employment by industry sector. Source: 1990 U.S. Census.

Sector	Number Employed	Percent Employed
Agriculture, forestry, and fisheries	72	7.8 %
Mining	3	0.3 %
Construction	85	9.1 %
Manufacturing, non-durable goods	19	2.0 %
Manufacturing, durable goods	132	14.2 %
Transportation	15	1.6 %
Communications and other public utilities	10	1.1 %
Wholesale trade	39	4.2 %
Retail trade	147	15.8 %
Finance, insurance, and real estate	54	5.8 %
Business and repair services	35	3.8 %
Personal services	47	5.1 %
Entertainment and recreation services	11	1.2 %
Health services	66	7.1 %
Educational services	52	5.6 %
Other professional and related services	94	10.1 %
Public administration	48	5.2 %
Total	929	100%

3.5.5.3 Southwest Harbor as Homeport

Southwest Harbor can be considered a port significant for scalloping during the 1999 fishing year both as a port of landing (Table 40) and as a designated home port (Table 41). There were 2 limited access and 6 general category boats that designated Southwest Harbor as their homeport during the 1999 fishing year. Five of these boats showed scallop landings in the logbook records during the 1999 fishing year. Logbook data show that dredge gear accounted for all of the scallops (by kept pounds) caught by boats home-ported at Southwest Harbor: 99.7% of scallops caught by scallop dredge and the remaining 0.3% caught by other dredge. Since there were only two limited access boats, their fishing activities will not be described below. The general category boats practiced a fishing strategy that was not dominated by any one particular species; the fisheries that accounted for more than 5% of the total catch (in kept lbs) of the general category boats were large-mesh groundfish (43.9%), lobster (29.8%), monkfish (9.3%), and sea urchins (6.7%), with sea scallops accounting for 4.0%.

Table 47. Vessel and scallop trip characteristics, 1999 permit data and 1999 logbook data.

Permit Status	Average vessel length, in feet	Average vessel gross tons	Average crew size, per trip landing scallops*	Average days absent, per trip landing scallops ³⁰
Limited Access	54.5	83.5	5.5	7.6
General Category	40.7	25.5	2.0	1.2

³⁰ For limited access boats, only trips which landed greater than 400 pounds scallops are considered; for general category boats, only trips that landed less than or equal to 400 pounds scallops are considered.

A number of statistical areas, concentrated on New England and the upper Mid-Atlantic, were important fishing grounds for the Southwest fleet, as shown in Table 48. There is seasonality to this use of the different fishing grounds, however, as well as seasonality to common species caught, as shown in Table 49 and Table 50.

Table 48. Distribution of scallop fishing grounds (areas having 5% or greater of scallop catch), 1999 logbook data. Vessel characteristics are only for trips landing greater than 400 pounds scallops.

Statistical Area	Kept pounds, scallops	Percent of total scallop kept lbs.	Areal % of scallops to all species kept lbs.	Number of trips to that area*	Ave. vessel length in ft., per trip recorded*	Ave. vessel gross tons, per trip recorded*	Average crew size, per trip recorded*	Average days absent per trip recorded*
511	12301	11.5%	19.0%	7	50.0	63.6	2.7	7.9
521	5500	5.2%	90.2%	2	**	**	5.0	6.7
522	23000	21.6%	100%	2	**	**	6.0	8.4
526	13600	12.7%	100%	1	**	**	7.0	8.6
562	45313	42.5%	100%	6	61.5	119.8	6.8	6.3

** Not reported to preserve confidentiality.

Table 49. Percent of areal contribution to scallop catch, by quarter (areas having 5% or greater of quarterly scallop catch).

Statistical Area	511	512	513	521	522	526	562
March 1999			41.4%				
April – June 1999				18.8%	78.6%		
July – September 1999						30.5%	69.5%
October – December 1999	37.6%	12.7%	6.0%				43.7%

Table 50. Percent of total kept lbs. (species with 5% or more of total catch per quarter), by quarter, 1999 logbook data.

Species	Monkfish	Lobster	Shrimp	Scallops	Urchins	Large-mesh Groundfish
March 1999	32.1%	7.5%	13.8%	5.5%		39.3%
April – June 1999	10.3%			27.8%		50.0%
July – September 1999		27.0%		46.5%		19.8%
October – December 1999		30.0%		47.4%	17.0%	

Vessels home-ported at Southwest Harbor also landed the majority of their catch from all fisheries (75.9%) at Southwest Harbor, with Portland ME second-most important (14.8% of total kept pounds). Similarly, these vessels landed most of their scallops (in terms of kept pounds) at Southwest Harbor (73.8%) and then Rockland ME (19.6%), with only 4% of scallops landed outside of Maine.

3.5.5.4 Southwest Harbor as Port of Landing

Southwest Harbor was also a significant place for scallopers as a port of landing, as shown in Table 40. That listing is based upon dealer weigh out data, which recorded 217,274 landed pounds of scallops compared to the logbook data that recorded 136,923 kept pounds of scallops. Nearly 1/3 of the landed pounds from the dealer weigh-out data were not associated with permitted vessels, making comparison between the two sources of data difficult. According to the logbook records, there were 4 limited access vessels, 14 general category boats, and 2 vessels with neither FMP that visited Southwest Harbor at least once during partial fishing year 1999. 55.7% of all kept pounds landed (from all fisheries) came from boats listing Southwest Harbor as their homeport; 85.3% came from boats listing Maine as homeport state. In terms of scallops, 57.6% of kept pounds of scallops came from boats listing Southwest

Harbor as homeport, followed by Bass Harbor ME boats (40.1%). 98.3% of scallops kept pounds came from boats listing Maine as homeport state.

99.8% of scallop kept pounds were landed with scallop dredge, followed by other dredge (0.2%). 91.5% of scallop kept pounds were landed by limited access vessels, with general category boats landing 8.5%. In terms of kept pounds, 33.3% of the total catch came from scallops, followed by lobster (31.8%), large-mesh groundfish (19.4%), and mixed hake (6.0%). Scallops accounted for 33.6% of landed value in fishing year 1999 (Table 40). Scallops landed at Southwest Harbor came predominantly from New England waters, as shown below.

Table 51. Distribution of scallop fishing grounds, (areas having 5% or greater of scallop catch), 1999 logbook data.

Statistical Area	Kept pounds, scallops	Percent of total scallop kept lbs.	Areal % of scallops to all species kept lbs.	Number of trips to that area*	Ave. vessel length in ft., per trip recorded*	Ave. vessel gross tons, per trip recorded*	Average crew size, per trip recorded*	Average days absent per trip recorded*
511	18926	13.8%	26.6%	12	52.1	59.8	3.2	6.4
512	7811	5.7%	4.3%	3	46.0	43.0	2.0	4.9
522	27667	20.2%	98.4%	3	62.3	109.3	5.7	8.9
526	13600	9.9%	100%	1	**	**	7.0	8.6
562	60707	44.3%	94.4%	7	57.4	73.3	6.4	8.7

*Only trips landing greater than 400 pounds scallops.

** Not reported to preserve confidentiality.

The following two tables show the distribution of both the statistical areas from which scallops predominantly were caught, and the overall composition of fisheries landed at Southwest Harbor, by quarter.

Table 52. Percent of areal contribution to scallop catch, by quarter (areas with 5% or greater of quarterly catch).

Statistical Area	511	512	513	515	522	526	562
March 1999		49.8%	50.2%				
April-June 1999					69.4%		25.1%
July-Sept. 1999				12.1%		27.7%	60.2%
Oct.-Dec. 1999	38.1%	13.1%					44.6%

Table 53. Percent of total kept lbs., by quarter (species with 5% or more of total catch per quarter), 1999 logbook data.

Species	Jonah Crab	Lobster	Pandalid Shrimp	Sea scallops	Large-mesh groundfish	Monkfish	Mixed Hake	Sea Urchins
March 1999	26.8%	28.7%	24.3%	20.2%				
Apr.-June 99		11.5%		37.0%	35.0%			
Jul.-Sep. 99		42.1%		30.8%	18.1%	5.0%		
Oct.-Dec. 99		35.8%		33.5%	9.4%		10.1%	8.3%

3.5.5.5 Southwest Harbor, Ethnographic Community Profiles

Close to Acadia National Park, this community contains much more tourism infrastructure than the other ports, yet it was here that there was a recent controversy surrounding a whale watching firm: later, a Portland told us that in this case it was more of an access issue, that there was much vehement opposition to the whale watching coming in because they would take up too much of already precious harbor space. Conflicts such as this, of course, would hinder an easy transition into tourism.

Two fishers at a scallop/ lobster buying station reported that there was only one fish dragger left in Southwest Harbor and another in nearby Bar Harbor. Both groundfish from medium sized vessels. Most of the fishers here rely on summer lobstering and winter scalloping. Scalloping season begins in November and runs through April; lobstering begins in March or so, and runs through to November. Fishers can catch lobster during the winter, but run the risk of having their traps dragged up by scallopers. This prevents lobstering except in areas where scallops will not drag because the substrates would damage their nets. Dealers here reported that those fished for lobster during the wintertime placed traps on rocky ledges, where scallopers won't drag.

The vessels that drag for fish around here are not going as far as Georges Banks; they are more closer to shore draggers. The fisher interviewed here, as in other ports, told us that the regulations had already dismantled much of the gillnetting portion of the groundfish fleet, and they had switched to other fisheries. One of these, of course, was sea urchins. In particular, lobstermen who used to rig their boats with "gallows," a rig that could make a lobster vessel a dragger, now have gotten into diving (dry suits, mainly) for urchins. They only drag for urchins where tides are too strong to dive, but this is viewed as ecologically destructive. (Griffith and Dyer 1996: 103)

3.5.6 Geographic Area: Washington County, Maine

Scallops landed at Washington County ports are primarily ones harvested during the state scalloping season, many from Cobscook Bay (personal communication, state of Maine port agent). Since the state scallop season in Maine runs from December 1 to April 15, and since many of these state waters fishers do not have to fill out logbooks, it is expected that the following significantly underreports scalloping activity. Ports in Washington county that see scallops landed are Lubec, Eastport, Cutler, Bucks Harbor, Beals Island, Jonesport, South Addison, Milbridge, Pigeon Hill, and Dyer Bay, as well as smaller ports which can see sometimes see scallop landings.

3.5.6.1 General Demographic Profile

From the 1990 Census, the population of Washington County was 35,308, of which 9% lived in urban areas and 91% in rural areas. 49% of the population was male and 51% was female. Approximately 58.2 % of the county was between 18 and 65 years of age; 25.6 % of the population was 18 years and under, and 16.2 % was 65 years or older. 73.2% of the population graduated from high school, while 12.7% had a bachelor's degree. 95.5% of the population was white, 4% was American Indian or Aleut, with the remaining 0.5% from Black; Asian or Pacific Islander; or other designations. 0.4% of the population reported being Hispanic. Of the ethnic categories reported in the census which account for at least 5% of the population, English dominated (36.1%), followed by Irish (13.8%), "American" (8.1%), French (7.8%), Scottish (6%), and German (5.5%). 75.2% of the population was born in Maine, while 4.4% of the population was born outside of the U.S.; 4.6% of those older than 5 speak a language other than English. There were 13,418 households, of which 58.5% were married-couple families, 3.6% were male-householder families, 10.0% were female-householder families, and 28% were non-family households. The average number of people per household was 2.55.

3.5.6.2 Economic Characteristics

Fifty-six percent of the population in general, aged 16 years and older, was in the labor force, of which 10.7% was unemployed and 1.7% was in the armed forces. By gender, however, 65% of male residents were in the labor force, of which 11% were unemployed and 2.7% were in the armed forces. For women, 46.6% were in the labor force, of which 10.3% were unemployed and 0.4% were in the armed forces. The median household income was \$19,993, with a per capita income of \$9,607. 19.3% of

the people for whom poverty status was determined in 1989 fell below the poverty level. Table 54 shows the relative proportions of industry for Washington County.

Table 54. Employed persons 16 years and older, employment by industry sector. Source: 1990 U.S. Census.

Sector	Number Employed	Percent Employed
Agriculture, forestry, and fisheries	1,009	7.6 %
Mining	32	0.2 %
Construction	1,106	8.3 %
Manufacturing, non-durable goods	1,446	10.9 %
Manufacturing, durable goods	806	6.1 %
Transportation	567	4.3 %
Communications and other public utilities	217	1.6 %
Wholesale trade	456	3.4 %
Retail trade	2,269	17.1 %
Finance, insurance, and real estate	327	2.5 %
Business and repair services	382	2.9 %
Personal services	354	2.7 %
Entertainment and recreation services	91	0.7 %
Health services	1,139	8.6 %
Educational services	1,576	11.9 %
Other professional and related services	619	4.7 %
Public administration	875	6.6 %
Total	13,271	100%

3.5.6.3 Other Washington County as Port of Landing

Washington County was a significant place for scallopers as a port of landing, as shown in Table 40. That listing is based upon dealer weighout data, which recorded 171,496 landed pounds of scallops compared to the logbook data that recorded 15,215 kept pounds of scallops during the same period. However, none of the landed pounds from the dealer weigh-out data were associated with permitted vessels (instead, all scallops were attributed to a lumped category of under 5 GRT vessels), making comparison between the two sources of data difficult. Logbook records show 12 general category boats visiting other Washington county ports at least once during partial fishing year 1999. 96.0% of kept pounds landed (from all fisheries) came from boats listing Lubec ME as their homeport; 99.8% came from boats listing Maine as homeport state. In terms of scallops, 33.8% of kept pounds of scallops came from boats listing Bucks ME as homeport, followed by Lubec ME boats (23.2%) and Port Clyde ME (17.9%). 93.4% of scallops kept pounds came from boats listing Maine as homeport state.

76.7% of scallop kept pounds were landed with scallop dredge, followed by other dredge (23.3%). All the logbook records show scallop kept pounds landed by only general category boats. In terms of kept pounds, 90.7% of the total catch came from herring, followed by sea urchins (5.1%), with scallops accounting for 2.8%. Scallops accounted for 13.3% of landed value in fishing year 1999 (Table 40). Scallops landed at other Washington county ports came predominantly from upper New England waters, as shown below.

Table 55. Distribution of scallop fishing grounds (areas having 5% or greater of scallop catch), 1999 logbook data.

Statistical Area	Kept pounds, scallops	Percent of total scallop kept lbs.	Areal % of scallops to all species kept lbs.	Number of trips to that area*	Ave. vessel length in feet, per trip recorded	Ave. vessel gross tons, per trip recorded	Average crew size, per trip recorded	Average days absent per trip recorded
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Statistical Area	Kept pounds, scallops	Percent of total scallop kept lbs.	Areal % of scallops to all species kept lbs.	Number of trips to that area*	Ave. vessel length in feet, per trip recorded	Ave. vessel gross tons, per trip recorded	Average crew size, per trip recorded	Average days absent per trip recorded
467	6668	43.8%	1.4%	6	42.5	23.0	3.2	3.1
511	8547	56.2%	48.7%	2	**	**	3.0	1.0

*Only trips landing greater than 400 pounds scallops.

** Not reported to preserve confidentiality.

The following two tables show the distribution of both the statistical areas from which scallops predominantly were caught, and the overall composition of fisheries landed at other Washington county ports, by quarter.

Table 56. Percent of areal contribution to scallop catch, by quarter (areas with 5% or greater of quarterly scallop catch).

Statistical Area	467	511
March 1999	N/A	N/A
April–June 1999		100%
July–Sept. 1999		100%
Oct.–Dec. 1999	54.7%	45.3%

Table 57. Percent of total kept lbs., by quarter (species with 5% or more of total catch per quarter), 1999 logbook data.

Species	Sea scallops	Sea Urchins	Herring	Mussels
March 1999	N/A	N/A	N/A	N/A
Apr.–June 99	34.3%	49.1%		
Jul.–Sep. 99	0.4%		99.2%	
Oct.–Dec. 99	28.3%	60.2%		6.8%

Washington County, Ethnographic Community Profiles

The smaller ports north and east of Portland are at once more dependent on fishing for the overall health of the community and less dependent specifically on ground fishing than fishers in and around Portland. Most of the ports of the Down East region of Maine are physically isolated, located along or at the ends of long dead end roads and more easily accessible by water than by land.

Tourist infrastructures remain at incipient levels of development, unlike the small coastal communities south of Portland, and local economic alternatives remain confined to forestry and fishing and the services that supply these industries and those employed in these industries. Generally, tourist infrastructure consists of a handful of bed-and-breakfast establishments, a few restaurants, an art gallery here and there, and one or two gift shops and book stores. Constraints to developing tourism derive from ecological and cultural sources. Many of these towns have been well integrated into local forest and rocky environments, with little space available for developing tourism further without destroying the very aesthetics that attract tourists to these coastal towns in the first place.

Many long-time residents of coastal towns, particularly those in the fishing industry, oppose tourism on the grounds that real estate development competes with fishing for coastal access and increases the volume of foot traffic along the waterfront. Those who suggest tourism as an alternative to commercial fishing, in any case, ignore several features of tourist development. The competition between commercial and recreational uses of the coast predisposes commercial fishers against moving into the leisure sector; indeed, established social ties to the leisure sector, strengthened by the solidarity that has emerged from past conflicts with commercial fishers, may prevent commercial fishers from the support they require to establish tourist-related businesses. Further, tourist development often quite rapidly begins

duplicating services. Finally, most of the jobs in tourism for those who do not own businesses are part-time and low-wage jobs.

Most coastal Maine fishing communities are similar in appearance. They range in size from under 1,000 to around 5,000, although most have populations fewer than 1,500. Stonington, for example, has a population of around 700, at least 40 percent of whom are either lobstermen or other kind of fishers (locals estimated a lobstering population of 300), and most of the remaining year-round residents engaged in services that cater to fishers. During the summer months, of course, populations in most of these coastal towns increase with seasonal residents (Acheson 1987). Increases in summer time activity coincide with increased commercial fishing and an increase in employment. Figures compiled by the Maine Department of Labor, for example, find that unemployment rates in these regions drop to their lowest levels, usually, during the months of July and August:

These figures show us, first, that some of these coastal regions, particularly those further from Portland (Jonesport and Machias) experience relatively high rates of unemployment even during the summer months. This indicates the few alternative employment opportunities outside those tied to forestry and fishing, both predominantly summertime operations.

Often hilly, neighborhoods of coastal Maine towns consist of small frame homes, and very occasionally a trailer or two, interspersed among colonial mansions and larger homes. These neighborhoods seem to slope down to the waterfronts, where the densest clusters of businesses and houses stand. Immediately upon entering a coastal town you perceive fishing iconography: ancient wooden captains' steering wheels and capstans, lobster pots, statues of lobsters and plaques with mounted cod outside municipal offices. Nets, buoys, lobster traps and vessels clutter the yards of nearly every house. Approaching the harbor, the orientation of the townsfolk toward water becomes especially obvious. Trap and net manufacturers, marine supply stores, fishing cooperatives and marketing operations compete for shoreline with whale-watching firms and transport vessels. Usually one or more municipal piers or private docks extend out into the water, rigged with fish and shellfish buying facilities that are barn like in appearance. Perpendicular to the main length of the pier are often smaller lengths of floating piers for tying up the 14' to 20' crafts that fishers use to move between land and their fishing vessels; the fishing vessels themselves are moored, offshore, at moorings throughout the harbor.

The ports east and north of Ellsworth and Bar Harbor, including Winter Harbor, Jonesport, and Machiasport, specialize in lobster, sea urchins, and winter dragging for scallops; the infrastructure is designed to land these species. Vessels have been outfitted with ironwork triangles to handle winches for hauling lobster traps or for the scallop rigs. Sea urchins, a relatively new fishery, are harvested primarily by divers, and a few gillnetters in each of these communities land flounder and other groundfish during the summer. Their numbers are dwindling. Licensing data becomes dated relatively quickly, even after three or four years; the Maine Marine Patrolman based outside Ellsworth said, "It [the fishery] changes every year." (Griffith and Dyer 1996: 101-102)

3.5.7 Geographic Area: Boston, Massachusetts

3.5.7.1 General Demographic Profile

From the 1990 Census, the population of Boston, MA was 2,775,370, of which 100% was urban. 47.7% of the population was male and 52.3% was female. Approximately 66.5 % of the city was between 18 and 65 years of age; 20.1 % of the population was 18 years and under, and 13.4 % was 65 years or older. 83.3% of the population graduated from high school, while 32.7% had a bachelor's degree. 86.8% of the population was white, 7.4% was black, 3.4% was Asian or Pacific Islander, 2.2% was "other", and

0.2% was American Indian or Aleut. 4.6% of the population reported being Hispanic. Of the ethnic categories reported in the census, which account for at least 5% of the population, Irish dominated (23.3%), followed by Italian (13.8%), English (11%), and German (6.5%). 75.1% of the population was born in Massachusetts, while 12.3% of the population was born outside of the U.S.; 15.8% of those older than 5 speak a language other than English. There were 1,059,788 households, of which 47.8% were married-couple families, 3.4% were male-householder families, 12.0% were female-householder families, and 36.8% were non-family households. The average number of people per household was 2.52.

3.5.7.2 *Economic Characteristics*

68.9% of the population in general, aged 16 years and older, was in the labor force, of which 6.2% was unemployed and 0.4% was in the armed forces. By gender, however, 76.9% of male residents were in the labor force, of which 7.1% were unemployed and 0.6% were in the armed forces. For women, 61.8% were in the labor force, of which 5.3% were unemployed and 0.1% were in the armed forces. The median household income was \$39,691, with a per capita income of \$19,165. 8.7% of the people for whom poverty status was determined in 1989 fell below the poverty level. Table 58 shows the relative proportions of industry for Boston, MA.

Table 58. Employed persons 16 years and older, employment by industry sector. Source: 1990 U.S. Census.

Sector	Number Employed	Percent Employed
Agriculture, forestry, and fisheries	10,558	0.7 %
Mining	1,027	0.1 %
Construction	71,716	4.9 %
Manufacturing, non-durable goods	68,385	4.7 %
Manufacturing, durable goods	143,660	9.8 %
Transportation	57,924	3.9 %
Communications and other public utilities	35,492	2.4 %
Wholesale trade	59,962	4.1 %
Retail trade	222,215	15.1 %
Finance, insurance, and real estate	140,045	9.5 %
Business and repair services	78,394	5.3 %
Personal services	40,696	2.8 %
Entertainment and recreation services	17,605	1.2 %
Health services	159,209	10.9 %
Educational services	144,995	9.9 %
Other professional and related services	149,088	10.2 %
Public administration	66,188	4.5 %
Total	1,467,159	100%

3.5.7.3 *Boston as Homeport*

Boston appears to be a port significant for scalloping during the 1999 fishing year as a designated homeport (Table 41)³¹. There were 13 limited access boats and 270 general category boats that listed Boston as their homeport. All 13 limited access boats participated in some fisheries if not scallops, and the 10 limited access boats recorded as landing scallops accounted for most of the kept pounds of

³¹ Permit applications provide little instruction as to the “correct” interpretation of homeport, and there are indications that some permit-holders may have understood the meaning of homeport to be the place where they send their permit and other forms and information (i.e. Boston for many in New England), but not their “home” in any other sense. To what extent this may apply to all those designating Boston their homeport is difficult to say, except that unlike most of the other homeports discussed in this section, there seems to be little correspondence between Boston as homeport and Boston as landing port.

scallops. There were 37 general category boats recorded as having landed scallops, however, plus 208 general category boats in total participating in scalloping and other fisheries as well, so their activities will be described below. Logbook data show that scallop dredge gear accounted for 96.7% of scallops (by kept pounds) caught by boats home-ported at Boston, followed by “other” gear (2.2%), other dredge (0.6%), and other bottom trawl (0.5%). Of fisheries that account for at least 5% of the total catch (by kept pounds) for limited access vessels, scallops accounted for 29.7%, followed by loligo squid (29.3%), monkfish (22.5%), and large-mesh groundfish (7.8%). For general category boats, herring accounted for 59.3% of all kept pounds, followed by large-mesh groundfish (12.7%), and skates (9.5%), with scallops accounting for 0.06% of their total catch.

Table 59. Vessel and scallop trip characteristics, 1999 permit data and 1999 logbook data.

Permit Status	Average vessel length, in feet (all permitted vessels)	Average vessel gross tons (all permitted vessels)	Average crew size, per trip landing scallops*	Average days absent, per trip landing scallops*
Limited Access	86.8	172.9	6.5	9.8
General Category	47.8	46.7	1.7	1.6

*For limited access boats, only trips which landed greater than 400 pounds scallops are considered; for general category boats, only trips that landed less than or equal to 400 pounds scallops are considered.

A number of statistical areas, concentrated on lower New England and the upper Mid-Atlantic, were important fishing grounds for the Boston fleet, as shown in Table 60.

Table 60. Distribution of scallop fishing grounds (areas having 5% or greater of scallop catch) 1999 logbook data.

Statistical Area	Kept pounds, scallops	Percent of total scallop kept lbs.	Areal % of scallops to all species kept lbs.	Number of trips to that area*	Ave. vessel length in feet, per trip recorded*	Ave. vessel gross tons, per trip recorded*	Average crew size, per trip recorded*	Average days absent per trip recorded*
521	264074	26.9%	4.8%	18	83.6	179.8	6.6	9.9
525	99377	10.1%	10.9%	8	89.8	174.0	6.3	13.7
526	149751	15.2%	12.9%	11	82.5	179.4	6.9	11.2
561	70148	7.1%	8.3%	6	99.5	186.8	6.2	11.3
562	234238	23.8%	22.1%	24	85.4	170.7	6.3	6.7

*Only trips landing greater than 400 pounds scallops³².

There was a seasonality to this use of the different fishing grounds, however, as shown in Table 61, and a seasonality to common fisheries composition.

Table 61. Percent of areal contribution to scallop catch, by quarter (areas with 5% or greater of catch per quarter).

Statistical Area	520	521	522	525	526	552	561	562	613	615
March 1999		74.0%	8.9%							8.2%
April–June 1999		9.0%		24.8%	19.9%		9.5%	9.6%	8.7%	12.4%
July–Sept. 1999	6.3%	7.6%				5.4%		66.1%		
Oct.–Dec. 1999		42.5%		6.4%	21.0%		7.9%	15.5%		

Table 62. Percent of total kept lbs., by quarter (species with 5% or more of total catch per quarter), 1999 logbook data.

Species	Monkfish	Herring	Spiny Dogfish	Skates	Scallops	Loligo squid	Large-mesh groundfish
March 1999	12.2%	14.2%	7.2%	10.6%	2.3%	8.9%	28.8%

³² The problem of pounds of scallops in the shell being lumped with pounds of scallop meats due to data entry recording problems is particularly egregious with this sample, and caution should be used in interpreting the numbers.