1.1 ECONOMIC AND SOCIAL TRENDS IN THE SEA SCALLOP FISHERY

1.1.1 Introduction

This section of the document describes the economic and social trends of the scallop fishery, including trends in landings, revenues, prices and foreign trade for the sea scallop fishery since 1994. In addition, it provides background information about the scallop fishery in various ports and coastal communities in the Northeast.

1.1.2 Trends in Landings, prices and revenues

For the first time since 2001, the landings from the northeast sea scallop fishery fell to 40 million pounds in 2013 fishing year (Figure 1). In the previous 9 years, the scallop landings exceeded 50 million pounds each year peaking over 60 million lb. in 2004 fishing year. The recovery of the scallop resource and consequent increase in landings and revenues was striking given that average scallop landings per year were below 16 million pounds during the 1994-1998 fishing years, less than one-third of the present level of landings.

The increase in the abundance of scallops coupled with higher scallop prices increased the profitability of fishing for scallops by the general category vessels. As a result, general category landings increased from less than 0.4 million pounds during the 1994-1998 fishing years to more than 4 million pounds during the fishing years 2005-2009, peaking at 7 million pounds in 2005 or 13.5% of the total scallop landings (Table 15). The landings by the general category vessels declined after 2009 as a result of the Amendment 11 implementation that restricts TAC for the limited access general category fishery to 5.5% of the total ACL. The landings by limited access general category fishery including by IFQ, NGOM and incidental permits, declined to about 2.7 million lb. in 2013 from about 3.3 million lb. in the 2012 fishing year (Figure 1).

Figure 1. Scallop landings by permit category and fishing year (in lb., dealer data)

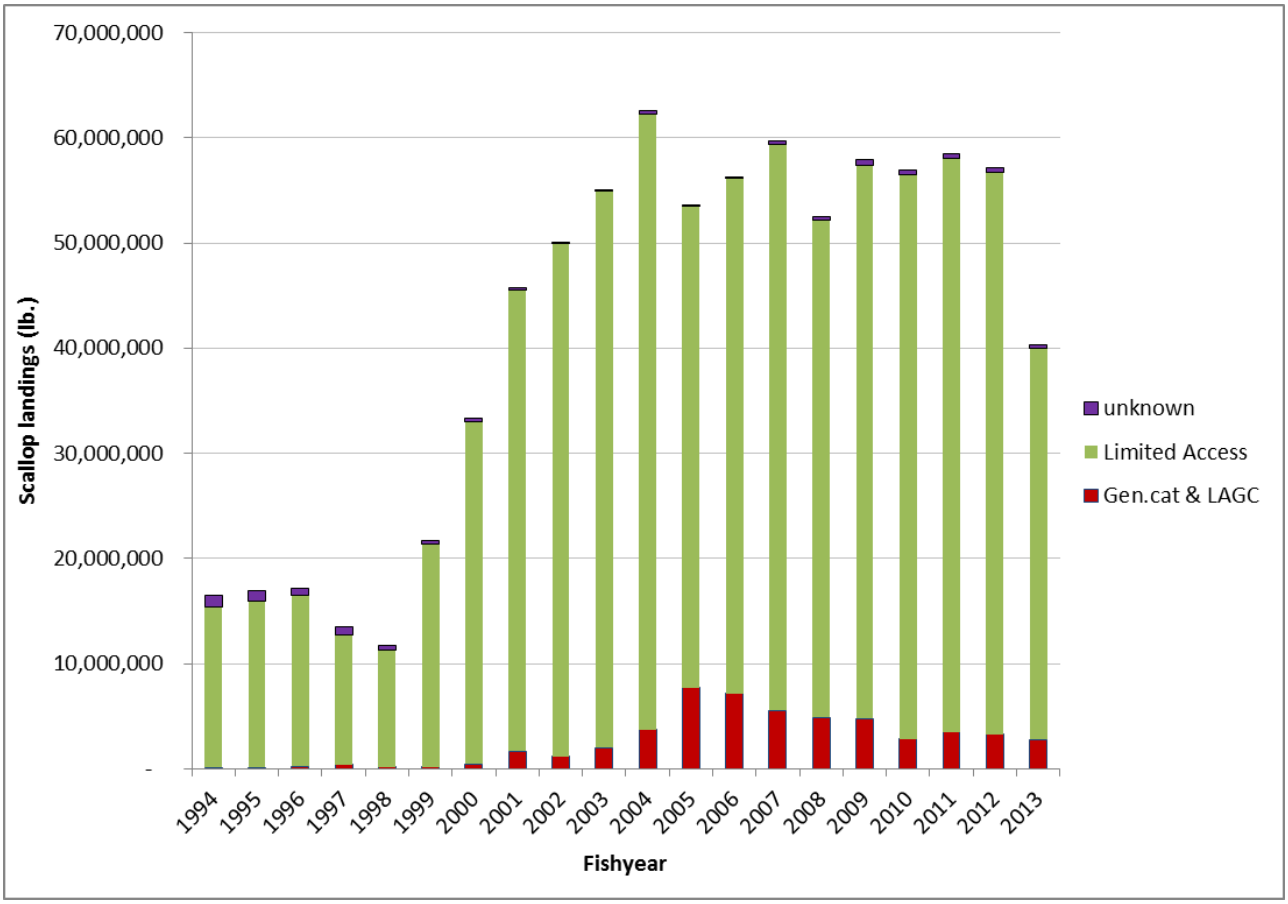
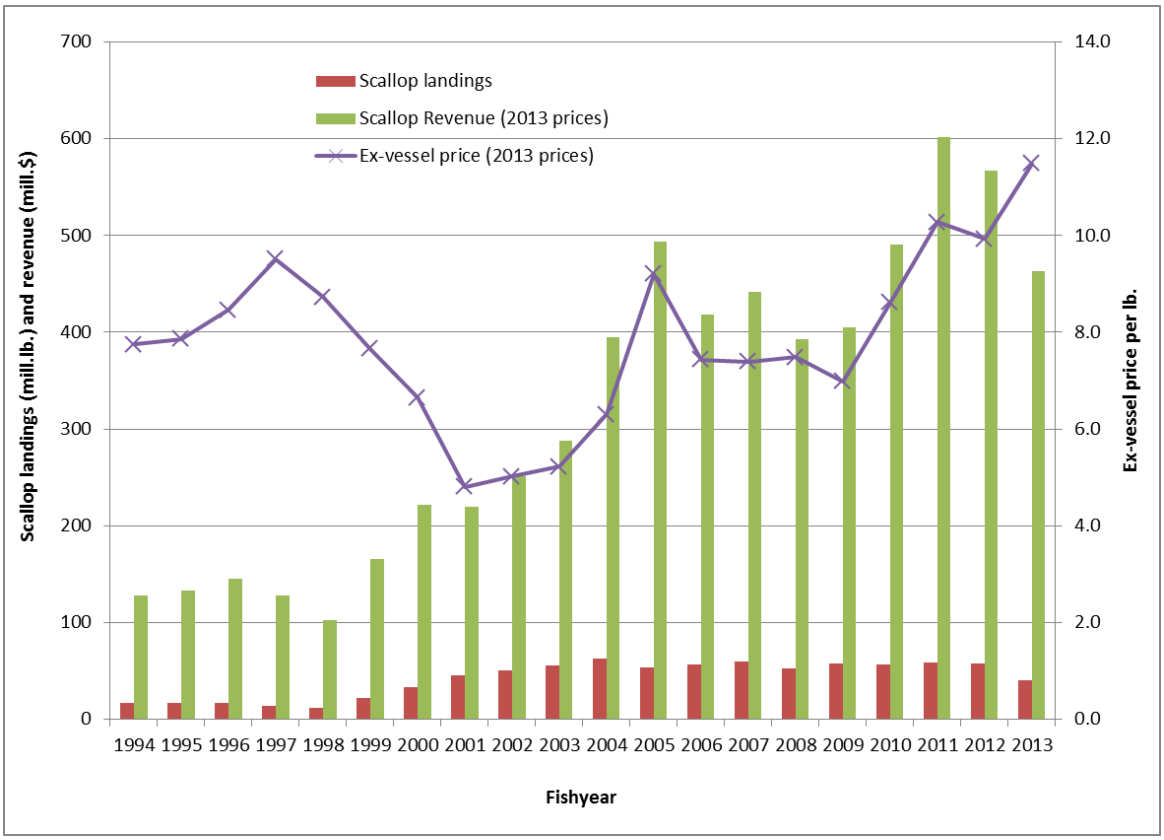


Figure 2 shows that total fleet revenue more than quadrupled in 2011 ($601 million, in inflation adjusted 2011 dollars) fishing year from its level in 1994 ($127 million, in inflation adjusted 2011 dollars). Scallop ex-vessel prices increased after 2001 as the composition of landings changed to larger scallops that in general command a higher price than smaller scallops. However, the rise in prices was not the only factor that led to the increase in revenue in the recent years compared to 1994-1998. In fact, inflation adjusted ex-vessel prices in 2008-2009 were lower than prices in 1994 (Figure 2). The increase in total fleet revenue was mainly due to the increase in scallop landings and the increase in the number of active limited access vessels during the same period.

The ex-vessel prices increased significantly to over $10 per pound of scallops in 2011 fishing year as the decline in the value of the dollar led to an increase in exports of large scallops to the European countries resulting in record revenues from scallops reaching to $601 million for the first time in scallop fishing industry history (Figure 2). The scallop ex-vessel prices peaked to $11.5 per lb. in 2013 due to the decline in landings by almost 30% in the same year. As a result, scallop revenue declined by a smaller percentage (18%) relative to the decline in decline in landings, from about $568 million in 2012 to $464 million in 2013, a level which still could be considered high by historical standards (Figure 2).

Figure 2. Trends in total scallop landings, revenue and ex-vessel price by fishing year (including limited access and general category fisheries, revenues and prices are expressed in 2013 constant prices)



The trends in landings and revenue per full-time vessel were similar to the trends for the fleet as a whole. Figure 3 shows that average scallop revenue per full-time dredge vessel tripled from about $536,000 in 1994 to over $1,612,000 in 2012 as a result of higher landings combined with an increase in ex-vessel prices. For full-time small dredge vessels, average revenue per vessel increased from $123,910 in 1994 to over $1,200,000 in 2012 (Figure 3). However, average scallop revenue per full-time vessel declined in 2013 to $1,300,000 for full-time and to $788,000 per the full-time small dredge vessel due to the decline in landings in this fishing year.

Figure 3. Trends in average scallop landings per full time vessel by category (Dealer data)

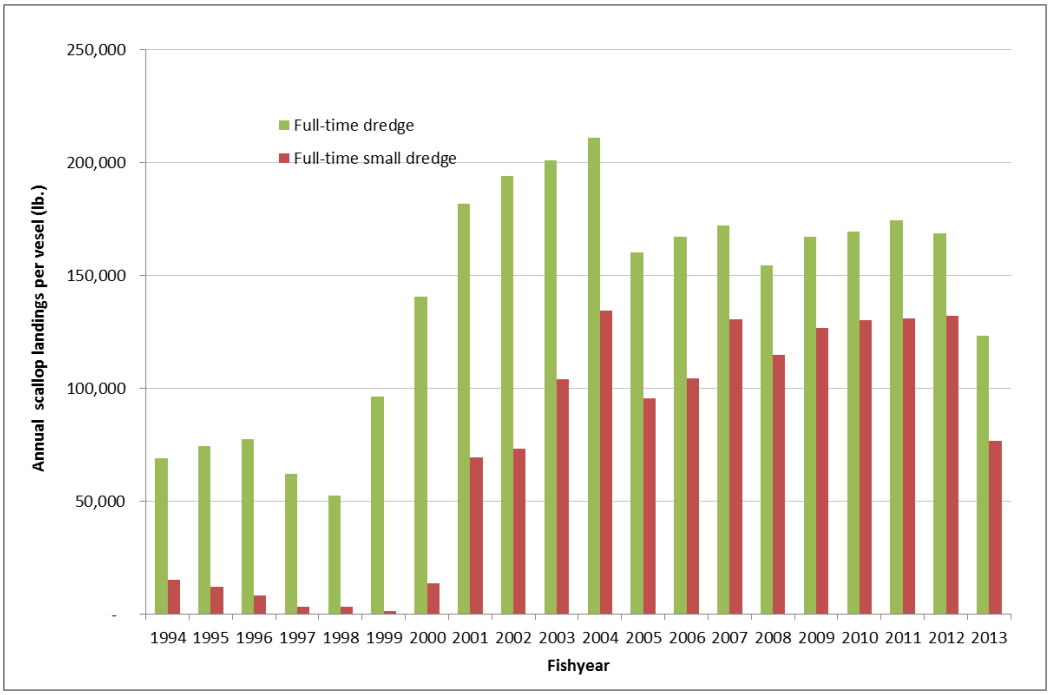
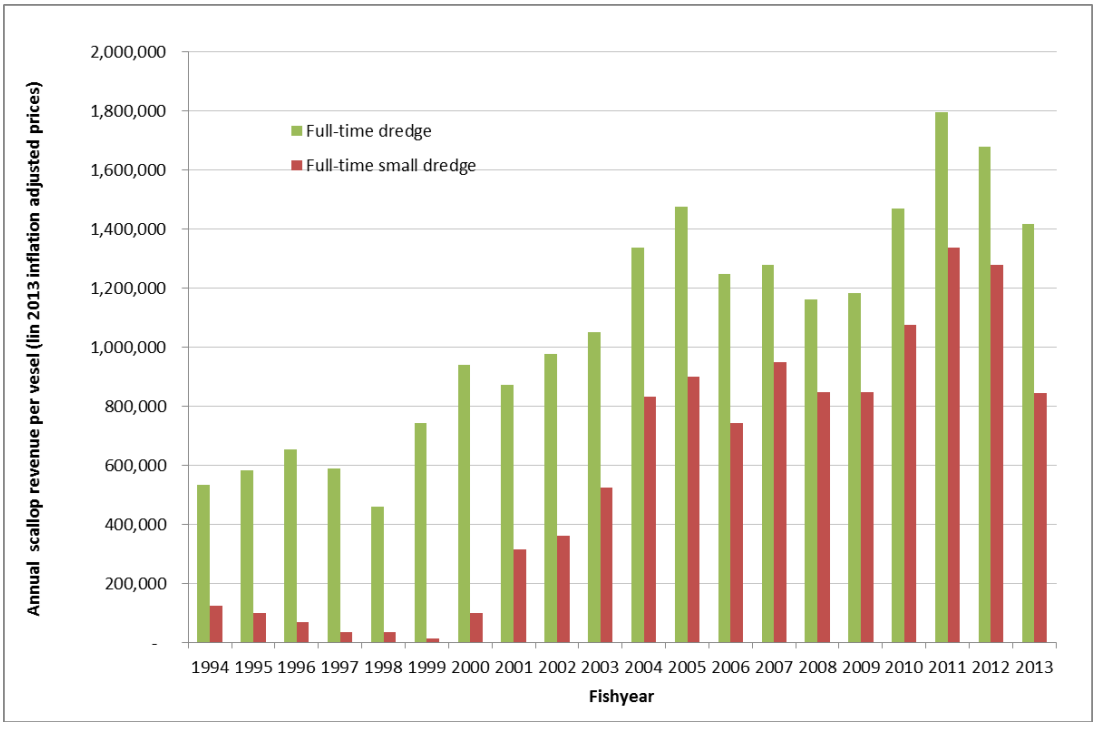


Figure 4. Trends in average scallop revenue per full-time vessel by category (Dealer data)



Although general category landings declined after 2009, scallop landings and revenue per active limited access general category vessel exceeded the levels in 2009 as the quota is consolidated on or fished by using fewer vessels (Figure 5 and Figure 6). It should be noted that these are estimated numbers from dealer data based on some assumptions in separating the LAGC landings from LA landings. It was assumed that if an LA vessel also had an LAGC permit, those trip landings which are less than 600 lb. in 2011 and less than 400 lb. in 2010 and 2009 were LAGC landings and any among above these were LA landings.

Figure 5. Trends in average scallop landings per vessel for the LAGC fishery by permit category

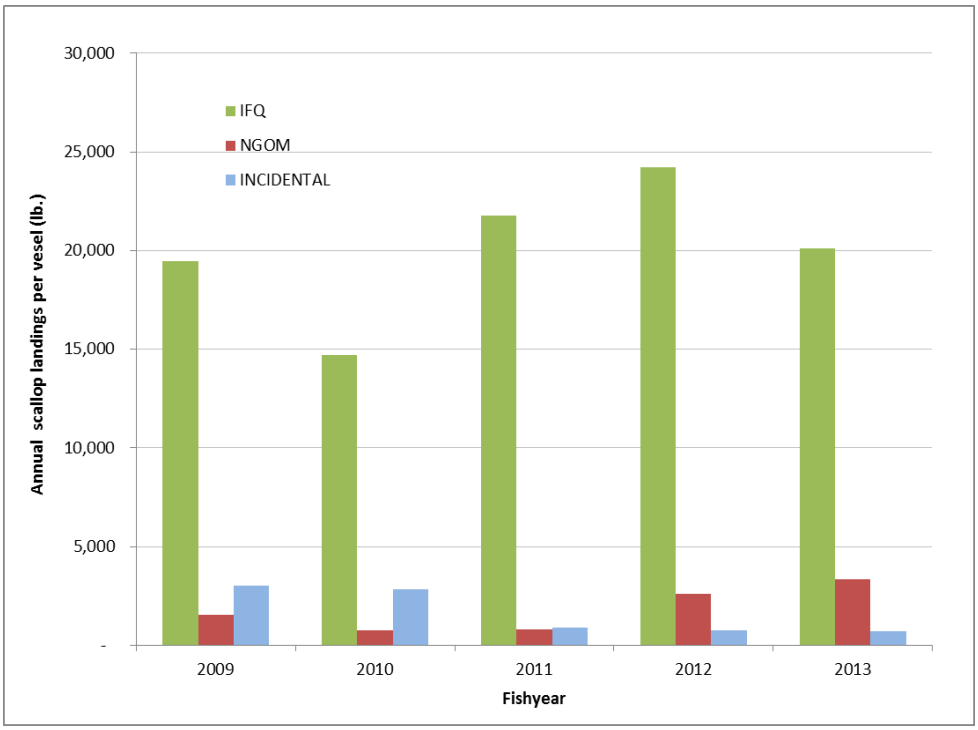
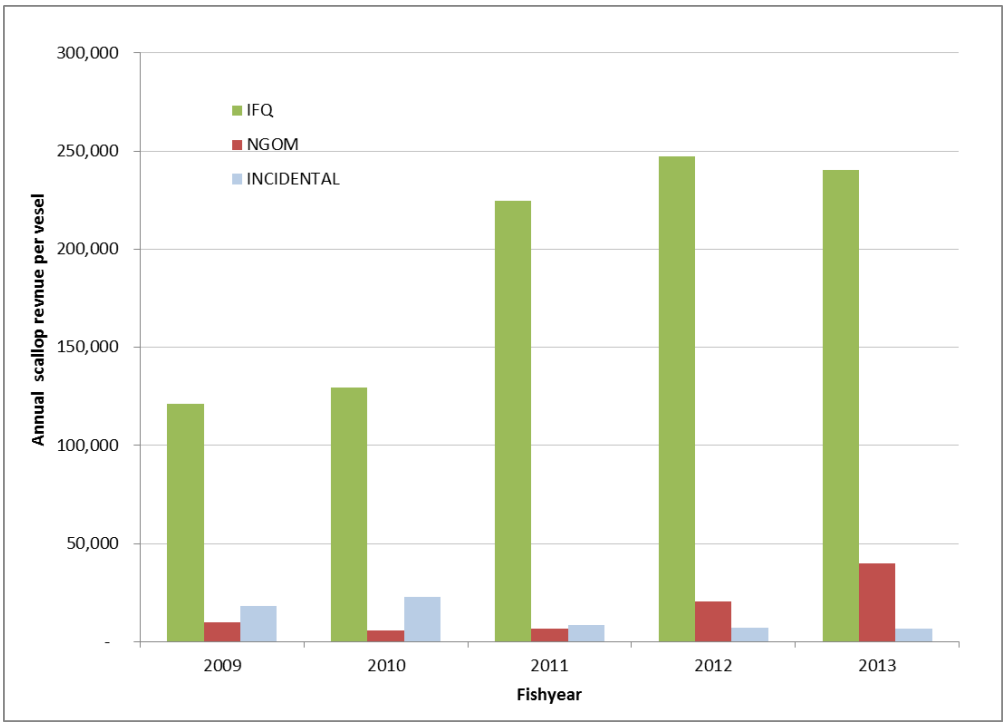


Figure 6. Trends in average scallop revenue per vessel for the LAGC fishery (dealer data, in 2013 inflation adjusted prices)



1.1.3 Trends in effort and LPUE

There has been a steady decline in the total DAS used by the limited access scallop vessels from 1994 to 2011 fishing years as a result of the effort-reduction measures of Amendment 4 (1994). DAS allocations during this period were reduced almost by half from 204 DAS in 1994 to 120 DAS in 2003 fishing year for the full-time vessels and in the same proportions for the part-time and occasional vessels from their base levels in 1994 (Table 1). As a result, estimated DAS-used (VTR data) reached the lowest levels of about 24,000 days in the 1999 from over 30,000 days in 1995-1996 (Figure 7).

Table 1. DAS and trip allocations per full-time vessel

Year	Allocations based on the Management Action	Total DAS Allocation (1)	Open area DAS allocations (2)	Access area trip allocations (3)	Estimated DAS-used per full-time vessel (VTR Data: Date landed-Date sailed)
1994	Amendment 4	204	None	None	123
1995	Amendment 4	182	None	None	144
1996	Amendment 4	182	None	None	153
1997	Amendment 4	164	None	None	148
1998	Amendment 4	142	None	None	134
1999	Amendment 7 Framework 11	120	90 to 120	3	109
2000	Framework 13	120	60 to 120	6	109
2001	Framework 14	120	90 to 120	3	115
2002	Framework 14	120	90 to 120	3	115
2003	Framework 15	120	90 to 120	3	114
2004	Framework 16		42 (MAX.62)	7	103
2005	Framework 16		40 (MAX.117)	5	87
2006	Framework 18		52	5	89
2007	Framework 18		51	5	101
2008	Framework 19		35	5	75
2009	Framework 19		37	5	83
2010	Framework 21		38	4	84
2011	Framework 22		32	4	72
2012	Framework 22		34	4	73
2013	Framework 24		33	2	56

Note that before 2004, access area trips counted toward annual DAS. For example, 10DAS would be charged per vessel if they participated in an access area program. Vessels did not have to take access area trips, but if they did 10 or 12 DAS would be charged against their annual allocation depending on the area and year. Since 2004 vessels are allocated area specific trips, if they do not take them they do not get additional DAS. The possession limit for the access area trips was reduced to 13,000 lb. in 2013 fishing year.

After fishing year 1999, fishing effort started to increase as more limited access vessels participated in the sea scallop fishery. The increase in total effort was mostly due to the increase in the number of vessels because total DAS allocations (mostly less than 120 days) were lower than the DAS allocations in the mid-1990s (over 142 days, Table 1). The recovery of the scallop resource and the dramatic increase in fishable abundance after 1999 increased the profits in the scallop fishery, thus leading to an increase in participation by limited access vessels that had been inactive during the previous years. Georges Bank closed areas were opened to scallop fishing starting in 1999 by Framework 11 (CAII) and later by Framework 13 (CAII, CAI, NLS), encouraging many vessel owners to take the opportunity to fish in those lucrative areas. Frameworks 14 and 15 provided controlled access to Hudson Canyon and VA/NC areas. As a result, the number of active limited access permits in the sea scallop fishery increased from 258 in 2000 to 303 in 2003. The total fishing effort by the fleet increased to about 33,000 days in 2003 from about 26,700 days in 2000 (Figure 7). Total fishing effort (DAS used) declined after 2003 even though the number of active vessels increased to 340 vessels in 2006 from 303 vessels in 2003 (Table 10).

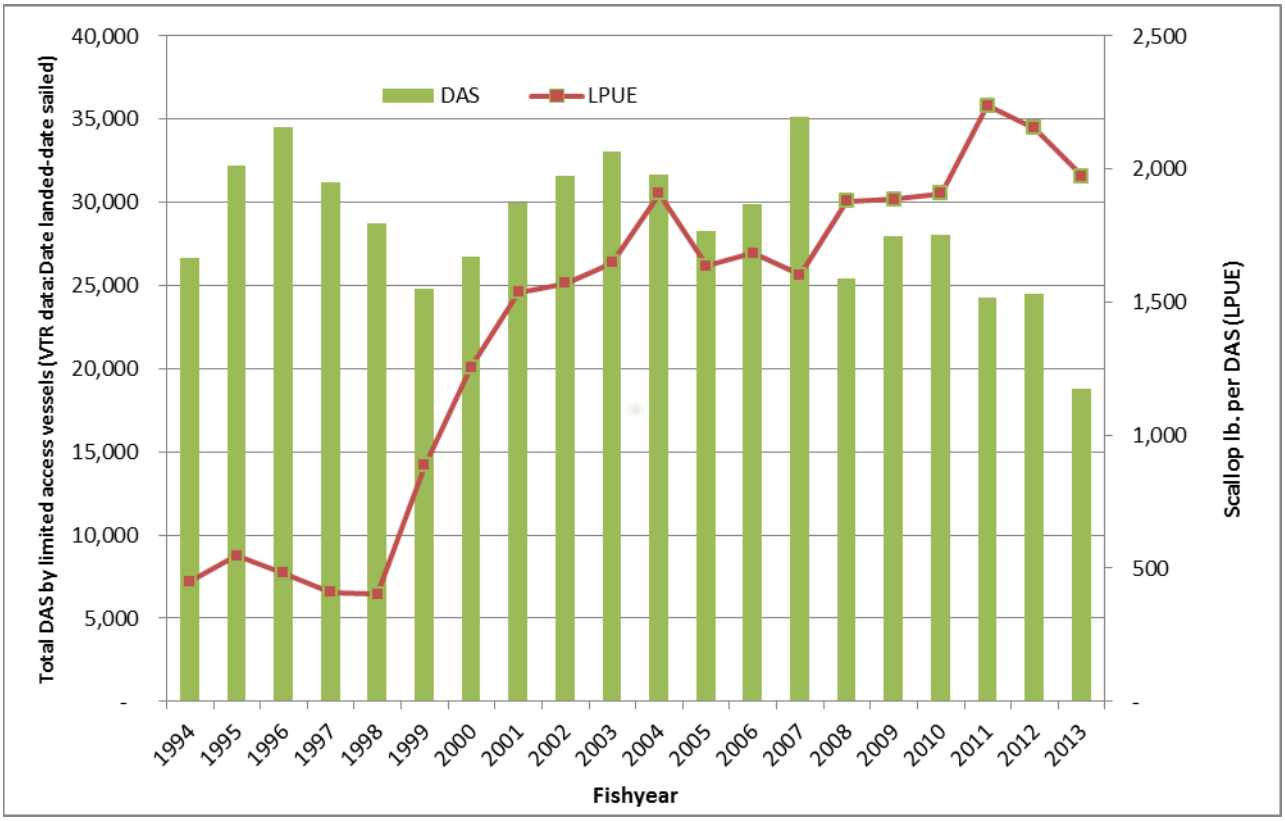
The column 1 in of Table 3 shows total DAS allocations (not DAS-used or days fished). Until the implementation of Amendment 10, each access area trip were assigned a 10 DAS trade-off

such that any vessel that choose not to fish in access areas could instead fish for scallops in the open areas for 10 DAS. Thus, total DAS allocation for the access areas is calculated as the number of trips multiplied by 10 DAS (even though it might have taken less than 10 DAS to land the possession limit in those areas). Following this method, Column 1 shows that total DAS allocations for open and access areas per full-time vessel declined from 204 DAS in 1994 to 120 DAS in 2003.

With the implementation of Amendment 10 (2004) the limited access vessels were allocated DAS for open areas and area specific access area trips with no open area trade-offs. Although the vessels could no longer use their access area allocations in the open areas, Amendment 10 and Frameworks 16 to 18 continued to include an automatic DAS charge of 12 DAS for each access area trip until it was eliminated by NMFS.

Total DAS-used declined further in 2008 to about 25,400 days as the open area DAS allocations are reduced by 30% from 51 days to 35 days per full-time vessel, but increased to 26,300 in 2009 as the limited access vessels received access area trips (5 trips per vessel). Total DAS-used by the limited access vessels were higher in 2010 despite lower number of access area trips (4 trips per vessel). Open area DAS allocations were slightly higher in 2010 (38 DAS versus 37 DAS in 2009) and vessels spend more time fishing in the access areas. Total DAS-used further declined in 2011, however, despite the increase in the open area DAS allocations. This because DAS-used in the access areas declined due higher LPUEs in these areas compared to 2010 fishing year. As a result of reduction in the number of access area trips to two trips per full-time vessel in 2013 fishing year, the total DAS-used reached its lowest level in this year with a total of 18,809 days as defined by the difference in the date landed and date sailed form the VTR records.

Figure 7. Total DAS-used (Date landed – Date sailed from VTR data) by all limited access vessels and LPUE



The impact of the decline in effort below 30,000 days since 2005 (with the exception of 2007) on scallop revenue per vessel was small, however, due to the increase in LPUE from about 1600 pounds per day-at-sea in 2007 to over 2237 pounds per day-at-sea in 2011 and to about 1900 lb. per day-at-sea in all areas (As estimated from date landed – date sailed from VTR data, Figure 7). Figure 8 shows that LPUE for the full-time dredge vessels was higher (about 2200 lb. in 2013 fishing year) than the LPUE of small dredge vessels (about 1416 lb. in 2013 fishing year).

It must be cautioned that these LPUE numbers are lower than the estimates used in the PDT analyses used to estimate open area DAS allocations. The numbers in Figure 7 through Figure 8 are obtained from the VTR database and include the steam time as calculated the days spent at sea starting with the sail date and ending with the landing date. In addition, those numbers include both open and access areas. In contrast, total "DAS used" in the fishery is the value incorporated in the LPUE models by the PDT to calculate future DAS allocations in the open areas for the full-time vessels. In these models, the value for DAS used comes from the field "DAS charged" from the DAS database. DAS charged is based on the time a vessel crossed the VMS demarcation line going out on a trip, and the time it crossed again coming back from a trip, so it wouldn't include the time from (to) the port to (from) the demarcation line at the start (end) of the trip. Therefore, the DAS-used (LPUE) calculated from the VTR data would be greater (lower) than the DAS-used (LPUE) calculated from the demarcation line in the DAS database.

Because VTR data is available for a longer period, however, it is useful in analyzing the historical trends in LPUE (from port to port) since 1994.

As a result of this increasing trend in LPUE from about 450 pounds per DAS in 1994 to over 2000 pounds per DAS since 2011, scallop revenue per vessel tripled in the last 10 years since 2004 compared to the levels in 1998.

Figure 8. LPUE for full-time vessels by permit category (VTR data, includes steam time and vessels with IFQ permits)

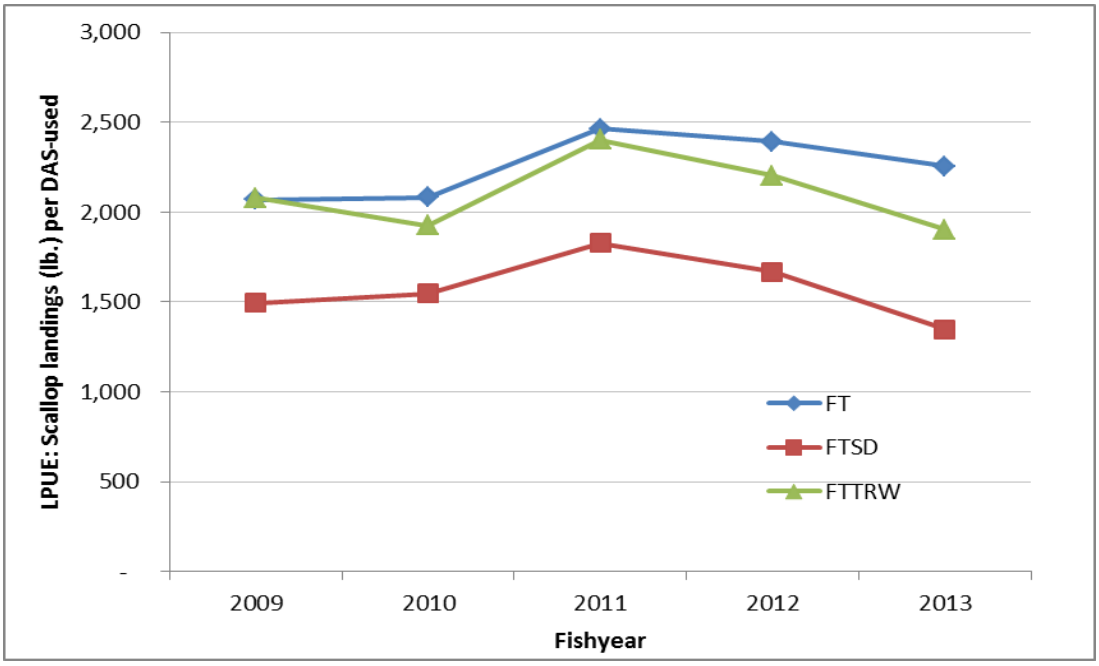
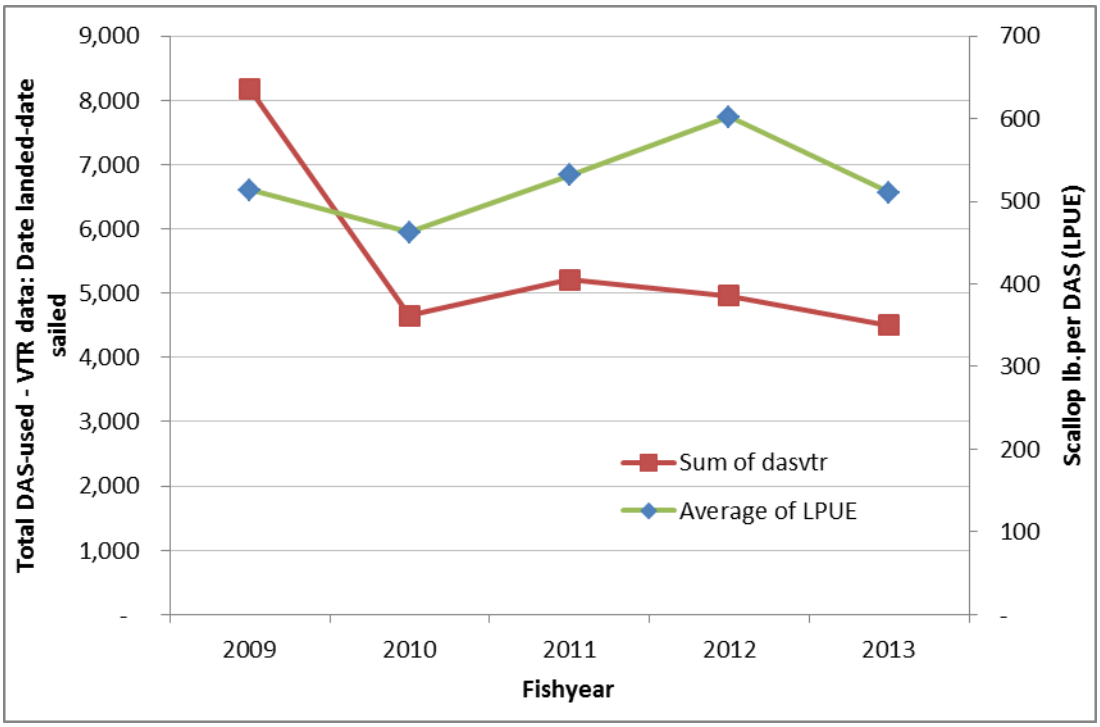


Figure 9. LPUE and DAS-used for LAGC-IFQ vessels (VTR data includes steam time, excluding LA vessels with IFQ permits)



1.1.4 Trends in the meat count and size composition of scallops

Average scallop meat count has declined continuously since 1999 as a result of effort-reduction measures, area closures, and an increase in ring sizes implemented by the Sea Scallop FMP. The share of larger scallops increased with the share of U10 scallops rising to over 20% during 2006-2008, to 15% in 2009 -2011 and to about 20% in 2012-2013 compared to less than 10% in 2000-2004. Similarly, the share of 11-20 count scallops increased from 13% in 1999 to 79% in 2011 and 63% in 2013. On the other hand, the share of 30 or more count scallops declined from 37% in 1999 to 1% or less since 2008 (Table 3). Larger scallops priced higher than the smaller scallops contributed to the increase in average scallop prices especially since 2010 (Table 4 and Figure 2).

Table 2. Scallop landings by market category

Fishyear	UNDER 10 COUNT	11-20 COUNT	21-30 COUNT	>30 COUNT	Grand Total
1999	3,690,533	2,613,754	6,195,369	7,365,692	19,865,348
2000	2,393,703	6,771,024	14,364,895	7,282,469	30,812,091
2001	1,520,424	10,783,931	24,596,256	4,587,499	41,488,110
2002	2,484,107	7,436,720	34,083,568	2,133,778	46,138,173
2003	3,644,668	12,221,010	31,844,817	1,755,259	49,465,754
2004	5,105,290	28,928,288	24,986,628	588,931	59,609,137
2005	6,906,267	31,608,791	11,482,597	1,126,285	51,123,940
2006	13,273,263	28,801,692	10,772,955	705,158	53,553,068
2007	14,903,951	32,021,763	7,518,148	2,227,602	56,671,464
2008	12,293,851	27,677,737	10,229,476	366,744	50,567,808
2009	8,420,979	35,689,194	12,145,131	172,383	56,427,687
2010	8,737,293	35,978,383	10,932,767	66,311	55,714,754
2011	8,564,518	45,261,304	3,247,867	309,435	57,383,124
2012	10,546,525	41,957,522	3,499,366	77,778	56,081,191
2013	8,661,071	24,739,918	5,579,649	131,537	39,112,175

Table 3. Size composition of scallops

Fishyear	UNDER 10 COUNT	11-20 COUNT	21-30 COUNT	>30 COUNT	Grand Total
1999	19%	13%	31%	37%	100%
2000	8%	22%	47%	24%	100%
2001	4%	26%	59%	11%	100%
2002	5%	16%	74%	5%	100%
2003	7%	25%	64%	4%	100%
2004	9%	49%	42%	1%	100%
2005	14%	62%	22%	2%	100%
2006	25%	54%	20%	1%	100%
2007	26%	57%	13%	4%	100%
2008	24%	55%	20%	1%	100%
2009	15%	63%	22%	0%	100%
2010	16%	65%	20%	0%	100%
2011	15%	79%	6%	1%	100%
2012	19%	75%	6%	0%	100%
2013	22%	63%	14%	0%	100%

Table 4. Price of scallop by market category (in 2013 inflation adjusted prices)

fishyear	UNDER 10 COUNT	11-20 COUNT	21-30 COUNT	>30 COUNT	Grand Total
1999	8.3	8.5	7.8	6.9	7.6
2000	9.2	7.0	6.2	6.3	6.6
2001	7.7	4.9	4.6	4.7	4.8
2002	7.1	5.1	4.8	5.6	5.0
2003	6.2	5.1	5.2	5.7	5.3
2004	7.4	6.4	6.0	6.2	6.3
2005	9.4	9.2	9.1	9.0	9.2
2006	6.9	7.6	8.0	7.9	7.5
2007	7.7	7.4	7.1	6.6	7.4
2008	7.7	7.4	7.3	7.1	7.5
2009	8.7	6.7	6.6	6.3	7.0
2010	11.2	8.0	8.7	9.0	8.6
2011	10.5	10.2	10.7	10.1	10.3
2012	10.4	9.8	9.9	9.8	9.9
2013	12.3	11.3	11.4	11.1	11.5

1.1.5 The trends permits by permit plan and categories

Table 5 shows the number of limited access vessels by permit category from 2003 to 2014. The fishery is primarily full-time, with a small number of part-time permits. There are no occasional permits left in the fishery since 2009 because these were converted to part-time small dredge. Of these permits, the majority are dredge vessels, with a small number of full-time small dredge and full-time trawl permit holders. The permit numbers shown in Table 5 include duplicate entries because replacement vessels receive new permit numbers and when a vessel is sold, the new owner would get a new permit number. The unique vessels with right-id numbers are shown in Table 7 for 2008-2012. For example, only 347 out of 356 permits in 2008 belonged to unique vessels. The number of LAGC permits held by limited access vessels are shown in Table 6.

Table 5. Number of limited access vessels by permit category and gear

Permit category	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Full-time	238	242	248	255	256	254	259	252	253	257	254	251
Full-time small dredge	39	48	57	59	63	56	55	54	53	53	52	52
Full-time net permit	16	15	19	14	12	11	11	11	11	11	12	12
Total full-time	293	305	324	328	331	321	326	317	316	321	318	315
Part-time	10	4	3	3	2	2	2	2	2	2	2	2
Part-time small dredge	19	26	30	34	35	32	34	34	32	33	32	33
Part-time trawl	8	3	-	-	-	-	-	-				
Total part-time	37	33	33	37	37	34	37	38	34	35	34	35
Occasional	3	3	1	2	1	1	-	-	-			
Occasional trawl	8	5	5	-	-	-	-	-	-			
Total occasional	11	8	6	2	1	1	0	0	0	0	0	0
Total Limited access	342	346	363	367	369	356	361	353	351	356	352	350

Note: The permit numbers above include duplicate entries because replacement vessels receive new permit numbers and when a vessel is sold, the new owner would get a new permit number.

Table 6. LAGC permits held by limited access vessels by permit category

AP-YEAR	IFQ	NGOM	Incidental
2008	41	19	87
2009	43	28	116
2010	40	28	114
2011	42	28	114
2012	41	27	119
2013	41	27	118
2014	40	27	115

Note: The permit numbers above include duplicate entries because replacement vessels receive new permit numbers and when a vessel is sold, the new owner would get a new permit number. 2014 numbers are preliminary.

Table 7. Scallop Permits by unique right-id and category by application year

Permit category	2008	2009-2014
Full-time	250	250
Full-time small dredge	52	52
Full-time net boat	11	11
Total full-time	**313**	**313**
Part-time	2	2
Part-time small dredge	31	32
Part-time trawl	0	0
Total part-time	**33**	**34**
Occasional	1	0
Total Limited access	347	347

Table 8 shows that the number of general category permits, including permits held by LA vessels, declined considerably after 2007 as a result of the Amendment 11 provisions. Although not all vessels with general category permits were active in the years preceding 2008, there is no question that the number of vessels (and owners) that hold a limited access general category permit under the Amendment 11 regulations are less than the number of general category vessels that were active prior to 2008 (Table 8). The numbers of LAGC permits by category, excluding the LA vessels that also have an LAGC permit, are shown in Table 9. The number of permits includes the permits of the replacement vessels within a given year.

Table 8. General category permit before and after Amendment 11 implementation (including the LAGC permits by Limited access vessels

AP_YEAR		Number of permits qualify under Amendment 11 program			Grand Total
	General category permit (up to 2008)	Limited access general category (A)	Limited access NGOM permit (B)	Incidental catch permit (C)	
2000	2263				2263
2001	2378				2378
2002	2512				2512
2003	2574				2574
2004	2827				2827
2005	2950				2950
2006	2712				2712
2007	2493				2493
2008		342	99	277	718
2009		344	127	301	772
2010		333	122	285	740
2011		288	103	279	670
2012		290	110	280	680
2013		278	97	282	657
2014		263	104	267	634

Table 9. LAGC permits after Amendment 11 implementation (excluding the LAGC permits held by limited access vessels)

AP-YEAR	IFQ	NGOM	Incidental
2008	280	79	173
2009	304	100	190
2010	293	94	172
2011	248	82	166
2012	237	70	163
2013	222	77	149
2014	204	68	136

Note: 2014 is preliminary.

The trends in the estimated number of active limited access vessels are shown in Table 10 by permit plan. Table 11 shows the number of active LAGC vessels by permit category excluding those LA vessels which have both LA and LAGC permits and indicates that there quota has been fished by fewer vessels in 2013 compared to the earlier years.

Table 10. Active vessels by fishyear and permit category (Vessels that landed any amount of scallops, Dealer Data)

Fishyear	FT	PT	FTSD	PTSD	FTTRW	PTTRW	OCTRW	Grand Total
1994	188	9	3	4	24	17	13	258
1995	185	9	2	2	24	12	8	242
1996	183	11	2	5	22	17	6	246
1997	176	8		4	18	16	3	225
1998	182	5	1	2	19	16	2	227
1999	196	8	1	3	14	16	6	244
2000	206	10	1	3	16	16	6	258
2001	212	12	11	6	16	17	6	280
2002	217	12	24	7	16	9	5	290
2003	225	10	30	12	15	6	3	301
2004	230	4	42	18	13	3	3	313
2005	234	3	50	23	12		2	324
2006	243	2	49	28	12			334
2007	248	2	53	30	11			344
2008	243	2	52	28	11			336
2009	244	2	53	31	11			341
2010	249	2	52	32	11			346
2011	250	2	53	32	11			348
2012	252	2	52	30	11			347
2013	250	2	52	30	11			345
2014	241	2	50	28	10			331

Table 11. Number of active vessels with LAGC permits by permit category (VTR data, excludes LA vessels with LAGC permits)

Fishyear	IFQ	INCINDENTAL	NGOM	Grand Total
2009	199	92	14	305
2010	139	76	13	228
2011	138	76	12	226
2012	126	82	19	227
2013	118	70	26	214
2014	111	39	20	170

*Note: The numbers for 2014 is up to September.

1.1.6 Landings by permit categories and gear type

Table 12 through Table 13 describe scallop landings by limited access vessels by gear type and permit category. These tables were obtained by combining the dealer and permit databases. Most limited access category effort is from vessels using scallop dredges, including small dredges. The number of full-time trawl permits has decreased continuously and has been at 11 full-time trawl permitted vessels since 2008 (Table 5). Furthermore, according to the 2009-2011 VTR data, the majority of these vessels (10 out of 11 in 2010) landed scallops using dredge gear even though they had a trawl permit. There has also been an increase in the numbers of full-time and part-time small dredge vessels after 2002.

Table 13 shows the percent of limited access landings by permit and year. In terms of gear, majority of the scallop landings by the limited access vessels were with dredge gear including the small dredges, with significant amounts also landed by full-time and part-time trawls until 2000. Table 13 shows that the percentage of landings by FT trawl permits declined after 1998 to about 3% of total limited access scallop landings in 2011. There were only 11 FT trawl permits in 2011. However, 2009-2011 VTR data also show that over 90% of the scallop pounds by the FT trawl permitted vessels are landed using dredge gear (10 vessels) since these vessels are allowed to use dredge gear even though they have a trawl permit. Similarly, all of the part-time trawl and occasional trawl permits are converted to small dredge vessels. Over 80% of the scallop pounds are landed by vessels with full-time dredge and close to 13% landed by vessels with full-time small dredge permits since the 2007 fishing year. Including the full-trawl vessels that use dredge gear, the percentage of scallop pounds landed by dredge gear amounted to over 99% of the total scallop landings in 2009-2011.

Table 12. Scallop landings (lbs.) by limited access vessels by permit category

Fishyear	FT	PT	FTSD	PTSD	FTTRW	PTTRW	OCTRW
1994	12,992,793	77,668	NA	NA	1,804,974	191,825	4,290
1995	13,752,423	205,147	NA	NA	1,477,777	140,178	45,409
1996	14,185,833	259,791	NA	13,336	1,282,612	376,874	93,375
1997	11,078,071	148,742		19,093	773,243	242,396	NA
1998	9,486,893	84,929	NA	NA	1,111,119	351,722	NA
1999	18,877,937	303,397	NA	15,692	1,382,335	564,111	15,950
2000	29,221,728	599,186	NA	80,741	1,871,048	710,032	14,284
2001	38,707,405	861,087	765,342	208,176	2,578,316	744,057	17,062
2002	42,319,380	918,534	1,757,695	269,284	2,980,542	504,441	31,876
2003	45,461,772	932,815	3,125,474	482,472	2,612,065	272,668	NA
2004	48,873,669	323,389	5,654,387	825,223	2,432,866	125,949	NA
2005	37,935,508	236,757	4,788,085	1,379,360	1,250,771		NA
2006	40,846,955	NA	5,223,125	1,304,877	1,339,748		
2007	43,091,302	NA	6,917,823	1,601,167	1,678,258		
2008	37,617,260	NA	6,117,525	1,298,183	1,536,814		
2009	41,266,837	NA	6,971,699	1,397,169	1,821,156		
2010	42,484,132	NA	6,774,054	1,927,559	1,790,240		
2011	43,662,880	NA	6,944,234	1,651,826	1,908,903		
2012	42,781,924	NA	7,081,245	1,391,171	1,780,017		
2013	30,809,109	NA	4,057,183	937,523	1,226,997		
2014	19,479,493	NA	2,438,280	544,575	700,174		

*Note: Although these vessels have trawl permits, majority of these vessels used dredge gear. As a result, over 90% of the scallop landings by the FT trawl permitted vessels are caught using dredge gear in 2009-2010 according to the VTR data.

Table 13. Percentage of scallop landings (lbs.) by limited access vessels by permit category

Fishyear	FT	PT	FTSD	PTSD	FTTRW	PTTRW	OCTRW
1994	85.93%	0.51%		0.02%	11.94%	1.27%	0.03%
1995	87.74%	1.31%		0.06%	9.43%		0.29%
1996	87.35%	1.60%		0.08%	7.90%	2.32%	0.57%
1997	90.35%	1.21%		0.16%	6.31%	1.98%	0.00%
1998	85.92%	0.77%		0.00%	10.06%	3.19%	0.03%
1999	89.21%	1.43%		0.07%	6.53%	2.67%	0.08%
2000	89.88%	1.84%		0.25%	5.76%	2.18%	0.04%
2001	88.21%	1.96%		0.47%	5.88%		0.04%
2002	86.75%	1.88%	3.60%	0.55%	6.11%		0.07%
2003	85.96%	1.76%	5.91%	0.91%	4.94%		0.00%
2004	83.90%		9.71%	1.42%	4.18%		0.03%
2005	83.18%		10.50%	3.02%	2.74%		0.03%
2006	83.72%		10.70%	2.67%	2.75%		0.00%
2007	80.58%		12.94%	2.99%	3.14%		0.00%
2008	80.41%		13.08%	2.78%	3.29%		0.00%
2009	79.84%		13.49%	2.70%	3.52%		0.00%
2010	79.84%		12.73%	3.62%	3.36%		0.00%
2011	80.29%		12.77%	3.04%	3.51%		0.00%
2012	80.35%		13.30%	2.61%	3.34%		0.00%
2013	82.85%		10.91%	2.52%	3.30%		0.00%
2014	83.83%		10.49%	2.34%	3.01%		0.00%

*Note: Although these vessels have trawl permits, majority used dredge gear in 2009-2010 and over 90% of the scallop landings by the FT trawl permitted vessels are caught using dredge gear during the same years.

Since 2001, there has been considerable growth in fishing effort and landings by vessels with general category permits, primarily as a result of resource recovery and higher scallop prices. Amendment 11 implemented a limited entry program for the general category fishery allocating 5% of the total projected scallop catch to the general category vessels qualified for limited access. The main objective of the action was to control capacity and mortality in the general category scallop fishery. There is also a separate limited entry program for general category fishing in the Northern Gulf of Maine. In addition, a separate limited entry incidental catch permit was adopted that will permit vessels to land and sell up to 40 pounds of scallop meat per trip while fishing for other species.

During the transition period to the full-implementation of Amendment 11, the general category vessels were allocated 10% of the scallop TAC. Beginning with 2010 fishing year, limited access general category IFQ vessels were allocated 5% of the estimated scallop catch resulting a decline in landings by the general category vessels (Table 14 and Table 15). These tables were obtained from the dealer and permit databases. The trip information obtained from the dealer data shows the permit number but does not specify whether a particular trip was taken as a the limited access (LA) or general category (LAGC) trip. Because many vessels had and have both LA and general category permits, to separate the LA trips from LAGC trips for the same vessel

requires some assumptions. If a vessel had both an LA and LAGC-IFQ permit, it was assumed that if scallop landings were equal or less than 400lb. (600lb.) for years up to 2010 (after 2010), that was an LAGC trip. If an LA vessel also had an LAGC-incidental permit, it was assumed that if scallop landings were equal or less than 100lb. that was an LAGC-incidental trip. For the LAGC-NGOM fishery it was assumed that if the scallop landings were equal or less than 200lb., that trip was a LAGC trip, otherwise it was an LA trip. In addition to these issues, there were many trips that were not associated with any valid permit plan (perhaps due to mistakes in the entry of permit number by dealers). Thus, it must be pointed out that the separation of landings by permit plan were estimated from the above assumptions and could differ slightly from actual landings. For example, Table 15 shows that in 2011 fishyear, the *estimated landings* by LAGC vessels including those by vessels with IFQ, NGOM and incidental catch permits and including the LAGC landings by the LA vessels that have both permits, amounted to 5.8% of total scallop landings in that fishyear.

Table 14. *Estimated Landings* by permit plan before and after Amendment 11 implementation

Fishyear	Gencat & LAGC	LA	NA	Grand Total
1994	125,001	15,128,621	1,203,669	16,457,291
1995	123,952	15,675,688	1,080,425	16,880,065
1996	213,535	16,234,409	759,431	17,207,375
1997	357,684	12,264,001	825,890	13,447,575
1998	164,185	11,042,134	567,277	11,773,596
1999	150,498	21,160,523	368,907	21,679,928
2000	425,364	32,510,711	354,600	33,290,675
2001	1,649,749	43,882,217	191,046	45,723,012
2002	1,124,933	48,784,134	132,652	50,041,719
2003	1,861,075	52,930,243	301,670	55,092,988
2004	3,699,334	58,288,383	652,773	62,640,490
2005	7,723,080	45,750,967	184,078	53,658,125
2006	7,097,155	48,888,678	288,678	56,274,511
2007	5,488,221	53,560,101	621,568	59,669,890
2008	4,785,198	46,842,633	847,472	52,475,303
2009	4,203,751	51,738,924	2,030,811	57,973,486
2010	2,330,701	53,277,449	1,352,837	56,960,987
2011	3,122,403	54,432,220	924,766	58,479,389
2012	2,962,148	53,296,551	899,001	57,157,700
2013	2,438,971	37,201,916	710,662	40,351,549
2014	1,539,230	23,264,651	405,847	25,209,728

Table 15. *Estimated Landings* by permit plan (Dealer Data)

Fishyear	Gencat & LAGC	LA	NA	Grand Total
1994	0.76%	91.93%	7.31%	100.00%
1995	0.73%	92.87%	6.40%	100.00%
1996	1.24%	94.35%	4.41%	100.00%
1997	2.66%	91.20%	6.14%	100.00%
1998	1.39%	93.79%	4.82%	100.00%
1999	0.69%	97.60%	1.70%	100.00%
2000	1.28%	97.66%	1.07%	100.00%
2001	3.61%	95.97%	0.42%	100.00%
2002	2.25%	97.49%	0.27%	100.00%
2003	3.38%	96.07%	0.55%	100.00%
2004	5.91%	93.05%	1.04%	100.00%
2005	14.39%	85.26%	0.34%	100.00%
2006	12.61%	86.88%	0.51%	100.00%
2007	9.20%	89.76%	1.04%	100.00%
2008	9.12%	89.27%	1.61%	100.00%
2009	7.25%	89.25%	3.50%	100.00%
2010	4.09%	93.53%	2.38%	100.00%
2011	5.34%	93.08%	1.58%	100.00%
2012	5.18%	93.24%	1.57%	100.00%
2013	6.04%	92.19%	1.76%	100.00%
2014	6.11%	92.28%	1.61%	100.00%

*Includes landings by LAGC IFQ, NGOM and incidental permits and LAGC landings by LA vessels.

The general category scallop fishery has always been a comparatively small but diverse part of the overall scallop fishery. The number of vessels participating in the general category fishery has continued to rise until 2007 when the New England Fisheries Management Council proposed limiting access in response to concerns of redirected effort from other fisheries. When the limited access general category was implemented, in 2008, there was a corresponding decline in the total number of active vessels. Then again in 2010, there was a decline in the number of active general category vessels when the GC IFQ program began and a "hard" Total Allowable Catch of 5% of the total scallop catch limit was established. These declines are evident in Table 14 and Table 15and Table 11 where the overall number of active vessels and scallop landings dropped, both in 2008 and in 2010.

1.1.7 Landings by permit categories and state

Table 16. Number of limited access trips by primary state of landing (excluding LAGC trips)

State	2009	2010	2011	2012	2013	2014
CT	92	92	93	98	59	30
MA	1,343	1,348	1,305	1,302	1,015	597
ME	24	25	32	25	21	11
NC	269	200	204	211	170	80
NJ	1,009	1,040	867	904	769	450
NY	23	25	19	23	18	NA
PA	11	11	9	8	7	NA
RI	21	23	15	17	13	11
VA	622	588	563	525	421	266

Table 17. Number of limited access trips by home state (excluding LAGC trips)

Home State	2009	2010	2011	2012	2013	2014
CT	92	92	93	98	59	30
FL	46	41	39	39	21	13
MA	1,334	1,338	1,293	1,290	1,008	594
ME	24	25	32	25	21	11
NC	420	332	359	349	272	171
NJ	951	1,010	833	835	722	424
NY	36	25	19	23	18	6
PA	54	39	31	46	35	17
RI	21	23	15	17	13	11
VA	436	427	393	391	324	177

Table 18. Scallop landings by primary state of landing for limited access vessels (excluding LAGC trips)

State	2009	2010	2011	2012	2013	2014
CT	1,671,132	1,653,705	1,725,970	1,705,315	1,089,217	568,371
MA	24,932,641	25,104,066	25,733,949	25,422,389	17,775,783	10,465,243
ME	419,850	416,240	513,595	481,804	316,595	110,666
NC	2,770,711	2,421,264	2,622,506	2,683,507	1,810,390	921,027
NJ	11,813,389	13,054,188	12,825,188	12,267,248	8,880,892	11,309,542
NY	265,543	310,400	261,909	245,561	173,391	NA
PA	163,449	168,220	196,808	147,000	129,918	NA
RI	403,023	427,099	370,684	382,473	283,454	220,612
VA	9,652,431	9,571,926	9,569,827	9,238,818	6,183,487	4,267,786

Table 19. Scallop landings by home state of landing for limited access vessels (excluding LAGC trips)

State	2009	2010	2011	2012	2013	2014
CT	1,671,132	1,653,705	1,725,970	1,705,315	1,089,217	568,371
FL	603,183	547,730	603,549	542,016	282,815	191,460
MA	24,786,691	24,991,691	25,600,949	25,298,809	17,675,733	10,417,443
ME	419,850	416,240	513,595	481,804	316,595	110,666
NC	5,046,205	4,472,765	5,142,301	5,057,049	3,132,035	2,193,256
NJ	11,341,917	12,895,577	12,601,420	11,994,651	8,907,305	11,118,006
NY	422,543	310,400	261,909	245,561	173,391	NA
PA	683,509	552,992	387,755	372,035	249,037	NA
RI	403,023	427,099	370,684	382,473	283,454	220,612
VA	6,714,116	6,858,909	6,612,304	6,494,402	4,533,545	2,885,228

Table 20. Number of LAGC-IFQ permits by home state (excludes LA vessels, Permit data)

HPST	2008	2009	2010	2011	2012	2013	2014
CT	5	5	4	1	3	3	3
DE	3	3	3	3	3	3	3
FL	2	2					
GA	2	1	1				
MA	98	111	107	95	89	84	79
MD	7	11	10	9	8	7	5
ME	26	22	16	12	11	8	6
NC	32	39	40	30	29	25	21
NH	9	10	7	6	6	5	5
NJ	62	69	75	62	56	57	53
NY	19	20	17	17	18	17	17
PA	1	1	1	1	1	1	1
RI	5	5	6	7	7	6	6
TX					1	1	1
VA	9	5	6	5	5	5	4
Grand Total	**280**	**304**	**293**	**248**	**237**	**222**	**204**

Table 21. Number of LAGC-IFQ permits by primary state (excludes LA vessels, Permit data)

PPST	2008	2009	2010	2011	2012	2013	2014
CT	5	5	4	1	3	3	3
DE	1	1	1	1	1	1	1
FL	2	3	1	1			
GA	2	1	1				
MA	101	113	109	97	90	85	80
MD	10	14	13	12	11	10	8
ME	23	20	14	11	11	8	6
NC	30	36	39	29	30	26	22
NH	8	9	6	5	5	4	4
NJ	64	70	75	62	56	57	53
NY	18	20	17	17	18	17	17
RI	6	6	7	7	7	6	6
VA	10	6	6	5	5	5	4

1.1.8 Trends in Foreign Trade

Figure 10 shows scallop exports and imports in pounds including fresh, frozen and processed scallops. Although though numbers possibly include exports of bay, calico or weathervane scallops, it mainly consists of sea scallops.

One of most significant change in the trend for foreign trade for scallops after 1999 was the striking increase in scallop exports. The increase in landings scallops led to a tripling of U.S. exports of scallops from about 5 million pounds in 1999 to a record amount of 32 million pounds in 2011. Total exports declined 21 million lb. in 2013 as the landings declined by 30% in the same year.

In contrast, imports of scallops declined to 42 million lb. in 2011 from about 60 million lb. in 2010, that is by almost 30% (Figure 10). Because of the increase in the value of scallop exports to over $214 million in 2011, the difference in the value of exported and imported scallops, that is scallop trade deficit reached to its lowest level, $42 million, since 1994 (Figure 11). Therefore, rebuilding of scallops as a result of the management of the scallop fishery benefited the nation by reducing the scallop trade deficit in addition to increasing the revenue for the scallop fishery as a whole.

However, this trend was sharply reversed in the 2013 fishing year as the value of imports jumped to about $380 million and the value of exports declined to about $140 million. Unfortunately, trade data doesn't include the market category (size) of the imported and exported scallops. However, Table 22 and Table 23 shows the prices, values and pounds by price group, which could reflect the changes in exports and imports by market category. Table 22 shows that most of the decline in the exported pounds happened in the category of scallops with average price

ranging from $4 to $8 per pound, while Table 23 shows that there was big increase in the imported pounds for category of scallops with average price ranging from $8 to $10 per pound.

Figure 10 - Scallop exports and imports (lb.)

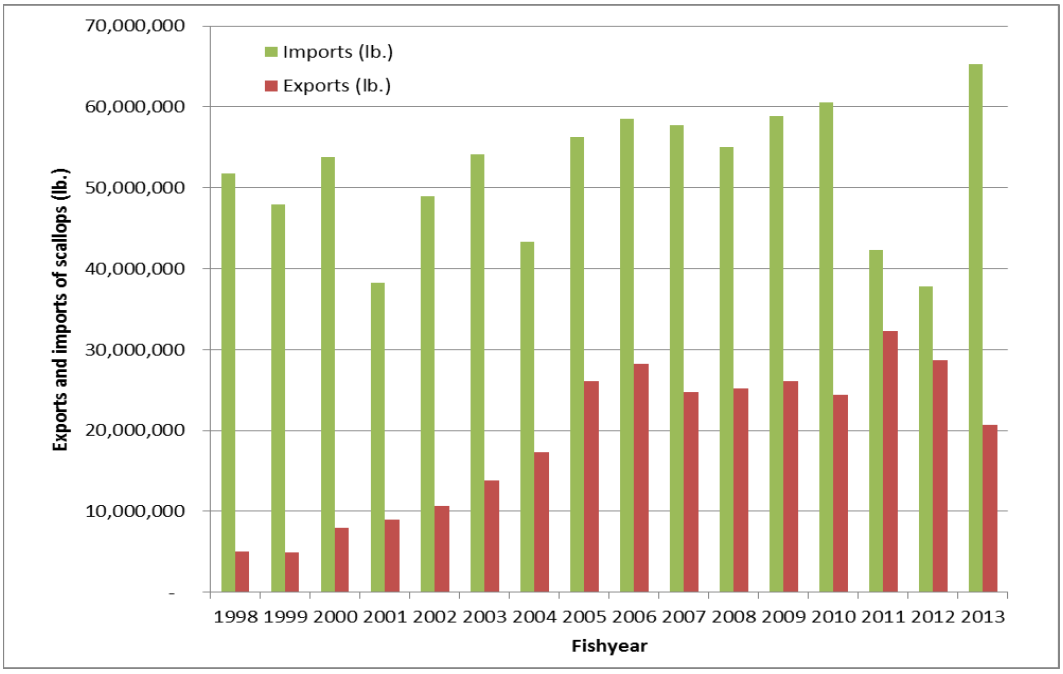


Figure 11 - Value of scallop exports and imports ($, in inflation adjusted 2013 prices))

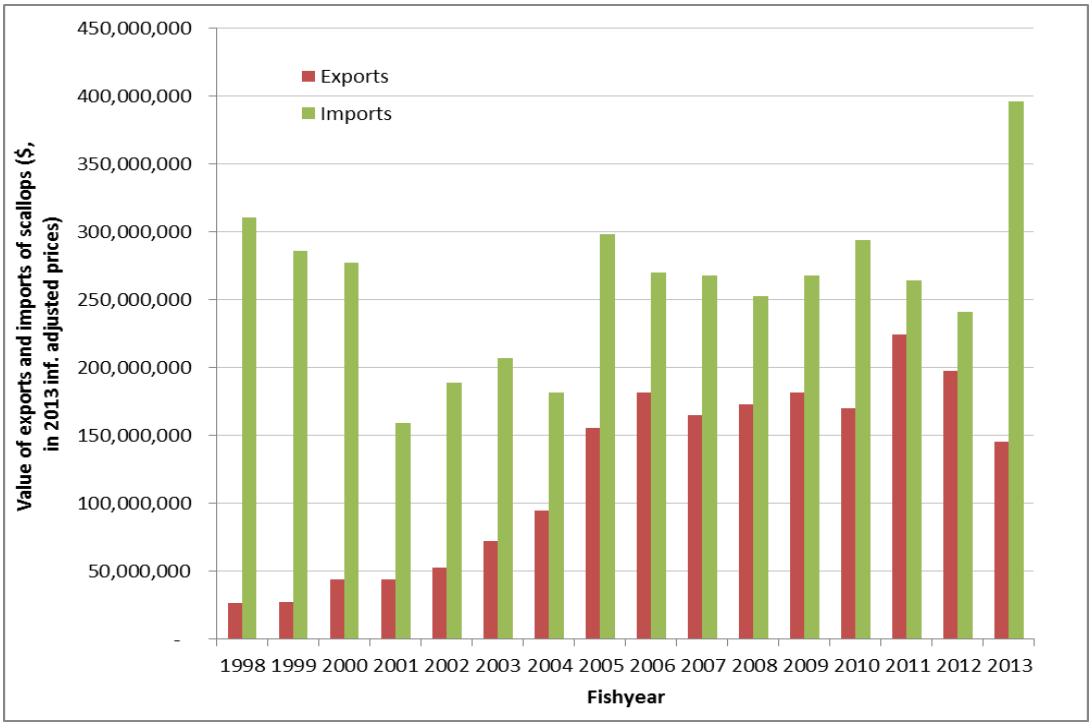


Figure 12 – Average annual price of scallop exports and imports ($, in inflation adjusted 2013 prices))

Table 22. Average price of exported scallops by price category by calendar year (in current prices)

Price group	Values	2011	2012	2013	2014
<=$4	Export lb.	1,127,620	829,379	541,972	251,468
	Export value ($)	3,355,953	2,705,167	1,822,139	807,309
	Average price	3.0	3.3	3.4	3.2
$4 - $8	Export lb.	23,023,200	21,801,576	14,338,774	8,089,819
	Export value ($)	145,267,895	138,437,041	93,920,861	50,288,736
	Average price	6.3	6.3	6.6	6.2
$8 - $10	Export lb.	7,869,161	5,991,124	6,148,233	2,596,624
	Export value ($)	65,808,565	51,042,066	52,914,802	23,749,313
	Average price	8.4	8.5	8.6	9.1
>$10	Export lb.	115,631	133,846	176,366	196,732
	Export value ($)	1,261,326	1,460,860	1,912,062	2,122,441
	Average price	10.9	10.9	10.8	10.8
Total Export lb.		**32,135,612**	**28,755,925**	**21,205,344**	**11,134,643**
Total Export value ($)		**215,693,739**	**193,645,134**	**150,569,864**	**76,967,799**
Average annual price		6.7	6.7	7.1	6.9

Table 23. Average price of imported scallops by price category by calendar year (in current prices)

Price group	Values	2011	2012	2013	2014
<=$4	Import value ($)	117,326,262	43,948,300	77,310,278	63,378,130
	Import lb. ($)	35,408,755	14,155,893	24,460,284	20,811,007
	Average price	3.3	3.1	3.2	3.0
$4 - $8	Import value ($)	53,149,509	44,698,767	74,898,749	43,100,927
	Import lb. ($)	9,333,062	7,244,596	14,215,757	8,806,023
	Average price	5.7	6.2	5.3	4.9
$8 - $10	Import value ($)	33,178,701	39,668,477	120,862,749	47,072,167
	Import lb. ($)	3,565,438	4,095,331	13,247,014	4,945,678
	Average price	9.3	9.7	9.1	9.5
>$10	Import value ($)	96,724,634	96,424,449	98,810,977	109,002,922
	Import lb. ($)	8,496,341	8,966,992	8,955,458	9,347,627
	Average price	11.4	10.8	11.0	11.7
Total import value ($)		**300,379,106**	**224,739,993**	**371,882,753**	**262,554,146**
Total Import lb. ($)		**56,803,596**	**34,462,812**	**60,878,512**	**43,910,337**
Average annual price		5.3	6.5	6.1	6.0