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March 5, 2013

VIA ELECTRONIC SUBMISSION

Program Manager
Office of Offshore Alternative Energy Programs (MS 4090)
Bureau of Ocean Energy Management, Regulation and Enforcement
381 Elden Street
Herndon, Virginia 20170

**Re: BOEM-2012-0083 – Request for Public Comment regarding
Unsolicited Request by the New York Power Authority for a
Commercial Wind Lease Offshore Long Island**

Dear Sir or Madam:

On behalf of the Fisheries Survival Fund (“FSF”), we offer the following comments regarding the New York Power Authority’s (“NYPA”) unsolicited request for a commercial outer continental shelf (“OCS”) wind lease offshore Long Island (“Proposed Area”) on behalf of the Long Island-New York City Offshore Wind Collaborative (“Collaborative”). 78 Fed. Reg. 760 (Jan. 4, 2013). FSF represents the significant majority of full-time Atlantic scallop “Limited Access” permit holders,¹ home ported from Massachusetts to Virginia and North Carolina. We appreciate the opportunity to address the existing use of the proposed area for navigation and

¹ “Limited Access” means that the number of available fishing permits are capped. FSF’s participants have “Full-Time” permits.

commercial fishing by FSF's members in addition to the environmental and socioeconomic consequences associated with issuing commercial wind leases in the proposed area.

I. Executive Summary

FSF strongly objects to the leasing of submerged lands on the OCS that overlap lucrative scallop beds, particularly those located in the Proposed Area. The Proposed Area overlaps significant scallop grounds where both FSF participants and other "General Category" scallop fishing vessels conduct significant fishing operations.

Leasing of the submerged lands on the OCS for ocean wind development—including surveying, installing, maintaining, operating, and decommissioning wind mills—conflicts with the valuable scallop fishery that operates within the project's footprint and has major socioeconomic impacts. Sea scallop landings are the economic backbone of many coastal communities and major commercial fishing ports on the East Coast from New Bedford, Massachusetts south to Newport News, Virginia and North Carolina. The proposed project has the potential to spatially constrict scallop fishing grounds and create navigational hazards. Displacement also is a key concern. Furthermore, the scallop resource within the area itself may suffer harm. The proposed project may crush scallops, affect scallop spat settlement patterns, and change the benthic environment. Co-locating a offshore wind project in key, productive fishing grounds ensures that the impacts associated with the project will be significant.

In summary, FSF objects to further consideration of leasing of submerged lands that are co-located where key scallop beds exist. FSF respectfully requests that BOEM remove lease blocks 6657, 6707-6709, 6758-6764, 6810-6814, and 6862 from further consideration for leasing pursuant to the Collaborative's lease application or that of any other parties interested in offshore wind development. In addition to the information provided herein, we identify other sources of information relating to fishing activities and fishery issues that should be considered in this – and all – offshore wind leasing proceedings.

II. Current Siting of Proposed Wind Projects Along the East Coast Conflicts With Commercial Fishing

As an initial matter, leasing in the Proposed Area, as well as any subsequent federal actions in the Proposed Area, cannot be considered in isolation. BOEM is establishing wind energy areas along the entire Atlantic Coast, including those offshore Massachusetts, Rhode Island, New Jersey, and Delaware, among others. The Atlantic scallop fleet is home-ported along the East Coast. Vessels routinely transit to fishing grounds away from their home port, either due to choice or regulatory requirements. Accordingly, FSF participants ultimately will not be affected by a single wind farm, but by a range of them. The cumulative effect of multiple renewable energy sites along the Atlantic Coast must be rigorously assessed at the preliminary stages, including during consideration of an unsolicited lease request.

More generally, federally licensed fishermen do not have unfettered access to fish in the exclusive economic zone. As outlined in species-specific fishery management plans promulgated under the Magnuson-Stevens Fishery Conservation and Management Act, these fisheries are very often regulated in where and when they can fish. *See generally* 50 C.F.R. Part

648 (regulating gear, time, and areas fished). For its part, the scallop fishery is managed using an explicitly spatial rotational model; a constriction of scallop fishing areas not only limits fishing opportunities in that area, but decreases overall allowable catch levels. Nips and tucks from a series of offshore leases thus can have a cumulative impact not only on where scallopers can fish, but also on their permitted catch levels coastwide.²

Moreover, the issuance of a lease is not a mere administrative formality that enables some scientific testing out in the ocean. In practical effect, it will most often delimit the areas where wind farms will be built. These site choices matter a great deal to pre-existing ocean users. It is simply not the case that fishermen—and especially mobile gear fishermen such as scallopers—will have unfettered access to the areas in which turbine arrays ultimately are sited. Commercial mobile gear fishermen, in particular, require space to navigate their gear through the water column and reach their target species in designated access areas. Wind farms create radar difficulties for fishing vessels, and the experience in Europe is that vessels cannot obtain insurance if they plan to fish within a wind farm area.

II. The Proposed Project Would Harm the Atlantic Scallop Fishery's Resource and Participants

FSF objects to the leasing of the OCS in the Proposed Area for wind energy development. The Proposed Area overlaps significant scallop grounds and species-rich areas where smaller boats in the General Category scallop fishery, as well as FSF participants, conduct significant operations because of the lucrative scallop beds located there, as demonstrated in the attached map of scallop survey data.

More specifically, the University of Massachusetts School of Marine Sciences and Technology ("SMAST"), NOAA Fisheries, and the Virginia Institute of Marine Science ("VIMS") all conduct resource surveys, the former using video technology, and the latter two with dredges. These data can be used to identify key aggregations of scallops over time, helping identify valuable fishing grounds. These data are important because they show where scallop grounds exist and where high scallop fishing effort is concentrated. Significant for present purposes, when the 2011 VIMS survey is laid over the map of the Proposed Area, considerable overlap between the two is obvious. The overlaid map is attached here.

Conflicts will begin occurring immediately. Ocean wind development—including surveying, installing, maintaining, operating, and decommissioning wind mills—conflicts with the valuable scallop fishery that operates within this footprint. The proposed project has the potential to spatially constrict scallop fishing grounds and create navigational hazards. Displacement also is a key concern. Furthermore, the scallop resource within

² Offshore leasing also must be considered in the context of closures of scallop beds, allegedly to protect benthic habitat on George's Bank. At present, approximately thirty percent of total scallop biomass is located in habitat closures, decreasing scallop landings by \$50-100 million annually.

the area itself may suffer harm. Co-locating a wind energy project in key, productive fishing grounds ensures that the impacts associated with the project will be significant.

The issuance of a commercial renewable energy lease gives the lessee an exclusive right to apply for approval of subsequent plans, particularly a site assessment plan ("SAP") and later a construction and operation plan ("COP"). In effect, the issuance of a lease opens a given area to intensive geotechnical, geophysical, hazard, benthic, archaeological, baseline environmental, and baseline biological surveying.³ If BOEM approves a SAP, then the lessee will be able to construct and install meteorological towers, buoys, and other necessary equipment as part of the site assessment and characterization.

Because of the clear potential for conflict of existing historic, reasonable ocean uses, BOEM may only approve an SAP if a lessee can demonstrate that these surveys will be conducted in a manner that "[i]s safe; [d]oes not unreasonably interfere with other uses of the OCS . . . ; [and d]oes not cause undue harm or damage to natural resources; life (including human and wildlife); property; the marine, coastal, or human environment" 30 C.F.R. 285.606(a)(2-4). Moreover, BOEM may only authorize a lease of the submerged lands on the OCS and associated activities if they do not affect "the character of the waters above the OCS as high seas and the right to navigation and fishing therein." 43 U.S.C. § 1332(2).

A lessee may not be able to produce a SAP that meets these statutory and regulatory standards in parts of the Proposed Area. As explained above, a wind energy area in the area proposed conflicts with ongoing scallop fishing on historic scallop beds.

The proposal may also adversely affect natural resources and the marine environment. Certain geotechnical and geophysical surveying can disturb the bottom and thus bottom-dwelling species, like scallops. Penetrating sub-bottom profilers rapidly bounce off a metal plate sound frequencies also cause additional disturbance to the species. The penetrating frequencies disturb bottom-dwelling species. Underwater remotely operated vehicles ("ROVs"), which may be used to drag equipment through the water column or along the seafloor, similarly disrupting the seafloor and harming species there. For the sound construction of meteorological towers and other structures, bore-hole sampling and penetration tests may be necessary. Both not only excise targeted parts of the seafloor, but they also may result in more expansive bottom disturbances.

An additional consequence of testing is that any foreign object at or near the seafloor will create turbulence and eddies, which influence scallop spat settlement and the viability of scallop beds as a whole. Scallop larvae are planktonic, meaning that they are suspended in the water column during this early life stage. Although they travel with currents, the larvae generally return to major spawning areas as they mature into spat. "Spatfall (the settling of larval scallops to the bottom), and the period immediately following, is thought to be

³ See 76 Fed. Reg. 19,638, 19,840-44 (Apr. 29, 2009) (codified at 30 C.F.R. §§ 285.605-285.611) (explaining required studies for a SAP).

particularly important in the formation of scallop beds and in determining year class size.”⁴ There is no evidence of mass migrations by scallops after spatfall.⁵ The movements of sea scallops are usually localized, and random or current-assisted.⁶ Once aggregations of adults are formed, they remain fixed.⁷ Changes in existing scallop bed’s benthic environment, therefore, pose significant risks to future scallop generations and the scallop resource as a whole.

Even less invasive geophysical surveying methods (e.g., sonar, surface-towed magnetometers, and chirp profilers) will impact commercial fishing efforts because all such surveying is conducted by slow-moving survey vessels tracking across regular intervals over an area for multiple days in calm seas. Such days are important to the safety and productivity of commercial fishing vessels and represent times of high fishing effort. Avoiding overlapping uses and timing is critical.

Because of the potential conflict in leased areas and scallop beds within the Proposed Area, we recommend that overlaps in uses be avoided by removing from consideration those lease blocks that overlap productive scallop beds. BOEM must consider under its governing authority established, competing uses for the area in question and site wind energy projects so as to minimize conflicts with existing fishing uses.

III. Socioeconomic Harm to Scallop Fishermen and Coastal Communities

The socioeconomic price of adversely impacting fishing on such lucrative scallop grounds is likely to be significant. Atlantic scallops are the economic drivers of fishing ports along the East Coast.⁸ Focusing on ports out of which scallopers access the Proposed Area to harvest its scallop beds, the landed value of sea scallops by port of landing in 2010 were as follows: Cape May, New Jersey, \$63,936,000; Newport News, Virginia, \$42,565,000; Barnegat Light/Long Beach, New Jersey, \$20,113,000; Seaford, Virginia, \$15,915,000; Point Pleasant, and New Jersey, \$10,598,000; among others.⁹ The landed value of scallops, linked to where the vessels are homeported, in 2010 were as follows: Cape May, New Jersey, \$75,466,000; Newport News, Virginia, \$23,028,000; Barnegat Light, New Jersey, \$19,685,000; New Bern, North Carolina, \$13,246,000; and Norfolk, Virginia, \$12,908,000.¹⁰ Value per pound of scallops has increased since 2010, due to market conditions and availability. Because of the quality of the product and increased demand, East Coast scallops have become valuable in international markets, in addition to domestic markets.

⁴Hart, Deborah R., & Chute, Antonie S., Essential Fish Habitat Source Document: Sea Scallop, *Placopecten magellanicus*, Life History and Habitat Characteristics Second Edition, NOAA Technical Memorandum NMFS-NE-189 (Sept. 2004), at 1-2 (internal citations omitted).

⁵ *Id.* at 2.

⁶ *Id.*

⁷ *Id.*

⁸ See *Framework 23 to the Atlantic Scallop Fishery Management Plan Environmental Assessment, Appendix I: Economic and Social Trends in the Sea Scallop Fishery*, available at <http://www.nero.noaa.gov/nero/regs/frdoc/11/11ScalFW23EAAAppendix1.pdf> (attached here for convenience).

⁹ *Id.* at Table 39 p. 35-36.

¹⁰ *Id.* at Table 41 p. 37-38.

In terms of percentage of landed value of scallops to total landed value by port, the value of sea scallops represents the supermajority of value across most ports, many owing 85-100% of their value to sea scallops.¹¹ By state, in 2011 \$142,482,039 worth of scallops were landed in New Jersey and \$79,426,406 in Virginia.¹² In New York, scallops routinely are the third-most lucrative fish landed.¹³ The total value of scallops landed in 2011 nationwide was \$585,090,285. The value of this resource is vital to the coastal economies, particularly when one considers that seafood goes through a six-fold increase in value as it moves to wholesalers, retailers and to the consumer.¹⁴

IV. Ineffective Consultation with Commercial Fishing Representatives

The Collaborative's "fatal flaw analysis" acknowledges impacts to scallop resource and the fishermen who rely on it, specifically the impacts that relate to bottom-tending gear, such as a scallop dredge. Specifically, the assessment determined that, "The presence of wind turbines would not preclude fishing activity within the facility but would impose some navigational limitations. Turbines are expected to be spaced one-third to one-half mile apart. Bottom dragging may be a concern for buried electrical cabling if it becomes exposed."¹⁵ The analysis concluded that the regional fishing industry may be adversely impacted.

The NYPA's application indicates that studies regarding potential commercial fishing impacts are ongoing since 2011.¹⁶ However, nowhere in publicly available documents is there evidence that the affected commercial fishing community, both in the State of New York and beyond its borders, were consulted either by the BOEM-New York

¹¹ *Id.* at Table 40 p. 36-37.

¹² Massachusetts and the port of New Bedford consistently rank the highest in the nation for pounds of scallops landed and value of landings. Because of the scallop industry, the Port of New Bedford has the designation of the most valuable (by value of landings) port in the United States for the past eight years, employing approximately 500 fishing vessels rigged for groundfish and scallops. See *Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore Rhode Island and Massachusetts Environmental Assessment*, OCS EIS/EA BOEM 2012-070, June 2012, at 156-7. Some of these vessels rely on the scallop resource in the Proposed Area early in the season, but the majority of fishermen using the Proposed Area's scallop beds are from ports south of Massachusetts, specifically in the Mid-Atlantic Region as described in detail above.

¹³ See Annual Commercial Landings Statistics, available at <http://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/annual-landings/index>.

¹⁴ Fishing council reverses decision to reduce scallop harvest, Press of Atlantic City, Jan. 27, 2010 available at http://www.pressofatlanticcity.com/news/press/cape_may/article_8f868956-0bc3-11df-ad3a-001cc4c03286.html.

¹⁵ *Long Island – New York City Offshore Wind Collaborative Request for Commercial Lease on Outer Continental Shelf*, Long Island, New York, Appendix 4 (Sept. 8, 2011), available at http://www.boem.gov/uploadedFiles/BOEM/Renewable_Energy_Program/State_Activities/BOEM%20LI-NYCAApplication09082011%282%29.pdf (last visited 2/20/13).

¹⁶ Letter from Adrienne Esposito, Executive Director, Citizens Campaign for the Environment, et al. to Maureen Bornholdt, Program Manager BOEMRE (August 2011) (letter in support of project submitted with application) available at http://www.boem.gov/uploadedFiles/BOEM/Renewable_Energy_Program/State_Activities/BOEM%20LI-NYCAApplication09082011%282%29.pdf.

Renewable Energy Task Force¹⁷ or the Collaborative. Had such consultation occurred, the NYPA would have known that it sited its project on valuable scallop fishing grounds.

Although the Collaborative concluded that these impacts are not a fatal flaw of the proposed project, BOEM has a legal obligation under the Outer Continental Shelf Lands Act, as amended by the Energy Policy Act of 2005, to protect existing “reasonable uses,” such as commercial fishing, and consider areas for fishing and navigational purposes. 43 U.S.C. §§ 1337(p)(4)(I), (J). The law demands that “the character of the waters above the outer continental shelf as high seas and the right to navigation and fishing therein shall not be affected” by BOEM’s leasing of OCS submerged lands. *Id.* § 1332(2).

For these reasons, FSF objects to the designation of proposed area because it overlaps and conflicts with high-valued scallop habitat and fishing grounds. FSF respectfully requests that BOEM remove from consideration lease blocks 6657, 6707-6709, 6758-6764, 6810-6814, and 6862 from further consideration for leasing.

We further strongly recommend that BOEM consult with the New England Fishery Management Council, the Mid-Atlantic Fishery Management Council and NOAA Fisheries Sustainable Fisheries personnel per the *Memorandum of Understanding on Coordination and Collaboration Regarding Outer Continental Shelf Energy Development and Environmental Stewardship between the U.S. Department of the Interior and U.S. Department of Commerce* (May 19, 2011). NMFS has at its disposal

- Vessel Monitoring System (“VMS”) data: All vessels in the scallop, groundfish, and other major fisheries must use these satellite tracking systems when engaged in fishing. They record a vessel’s position twice an hour. A vessel’s course, speed, and location can be used to roughly identify when and where a vessel is fishing. The data reflect fishing effort on an area basis.
- Vessel Trip Reports (“VTR”): Filed weekly, these logbooks identify when and where fishing activity is occurring.
- The Swept Area Seabed Impact (“SASI”) Model: A tool developed by the Council and NMFS to help identify fishing’s impacts on essential fish habitat. It contains fishery-specific effort data for over a ten year period drawn from VMS, VTR, and other data sources. It is the most comprehensive and finest scale information.

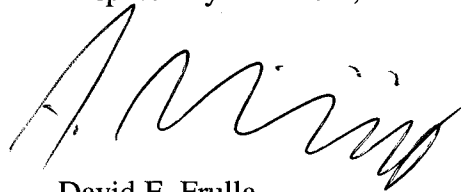
¹⁷ We note that, according to the list of meeting attendees for all past Task Force meetings, only one representative of the Mid-Atlantic Fishery Management Council was present for one meeting. Otherwise, not a single representative of the commercial fishing sector was present – fishermen; commercial fishing trade representatives; regulators from the National Marine Fisheries Service (“NMFS”) or NOAA Fisheries; other council members from either the New England Fishery Management Council or the Mid-Atlantic Fishery Management Council; or other fisheries-related representatives. We also could not find any form of public notice for these meetings. Because the Task Force is a BOEM-led, but state-centric process, it is likely that public outreach did not extend to interested parties outside the State of New York, such as FSF participants who, by and large, are not homeported in New York.

- Scallop Survey Data from SMAST, NOAA Fisheries, and VIMS, which can be used to identify key aggregations of scallops over time, helping identify valuable fishing grounds. Both SMAST and VIMS have done overlays of lease areas using survey maps.

* * *

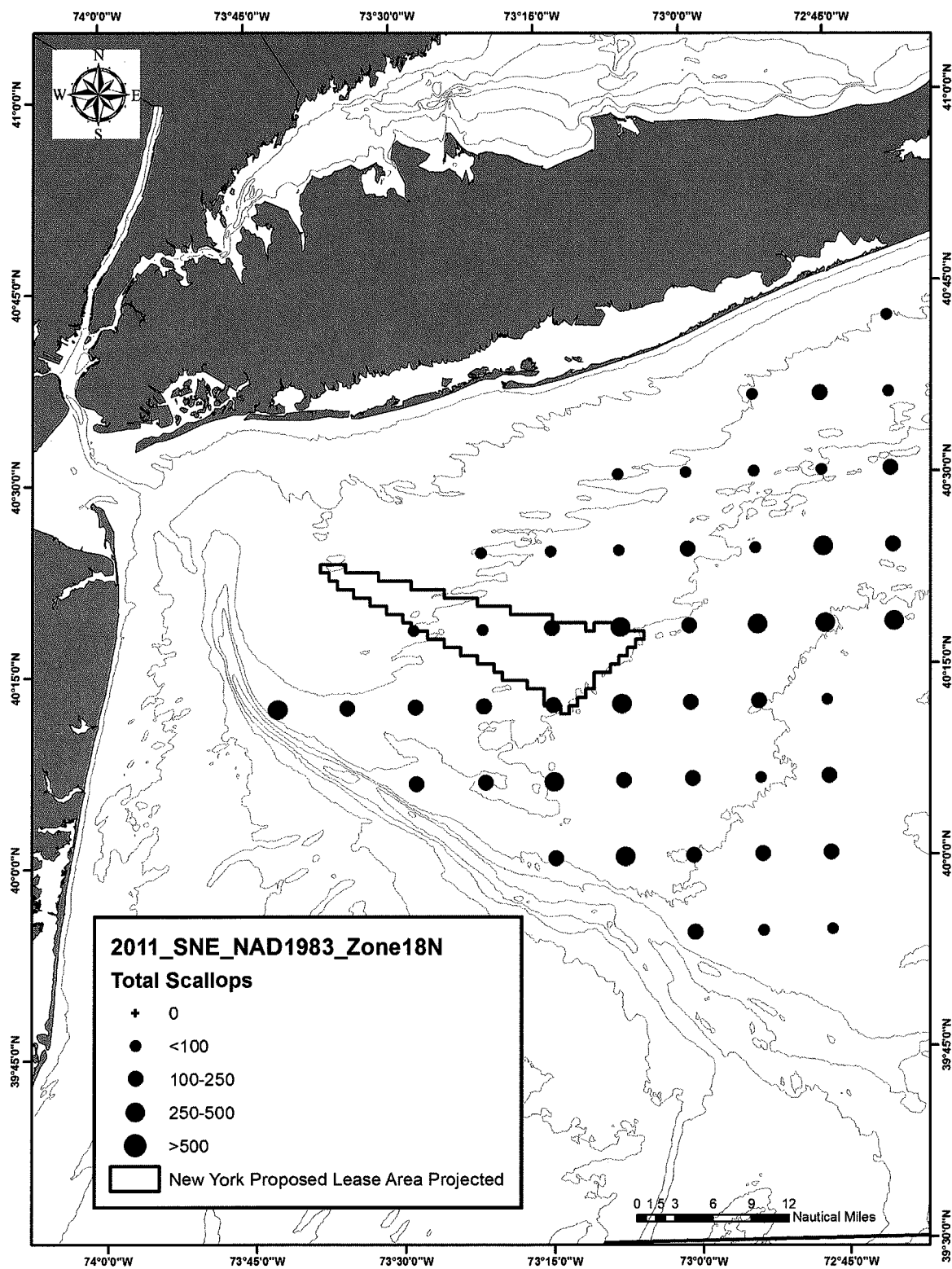
We appreciate this opportunity to comment on NYPA's unsolicited request for a lease for ocean wind development offshore Long Island. We hope BOEM will take these recommendations into account and remove the designated OCS blocks from further leasing consideration. As always, please do not hesitate to contact us if we can provide any further information or answer any questions about these comments.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Frulla', written over a horizontal line.

David E. Frulla
Andrew Minkiewicz
Michele G. Hallowell

2011 VIMS SURVEY RESULTS SHOWING SCALLOP ABUNDANCE





APPENDIX I

Economic and Social Trends in the Sea Scallop Fishery

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

In the fishing years 2002-2010, the landings from the northeast sea scallop fishery stayed above 50 million pounds, surpassing the levels observed historically (Figure 1). 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. The landings by the general category vessels declined in 2010 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.

Figure 2 shows that total fleet revenues tripled from about \$120 million in 1994 to over \$450 million in 2010 (in inflation-adjusted 2010 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 main 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 3). 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.

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

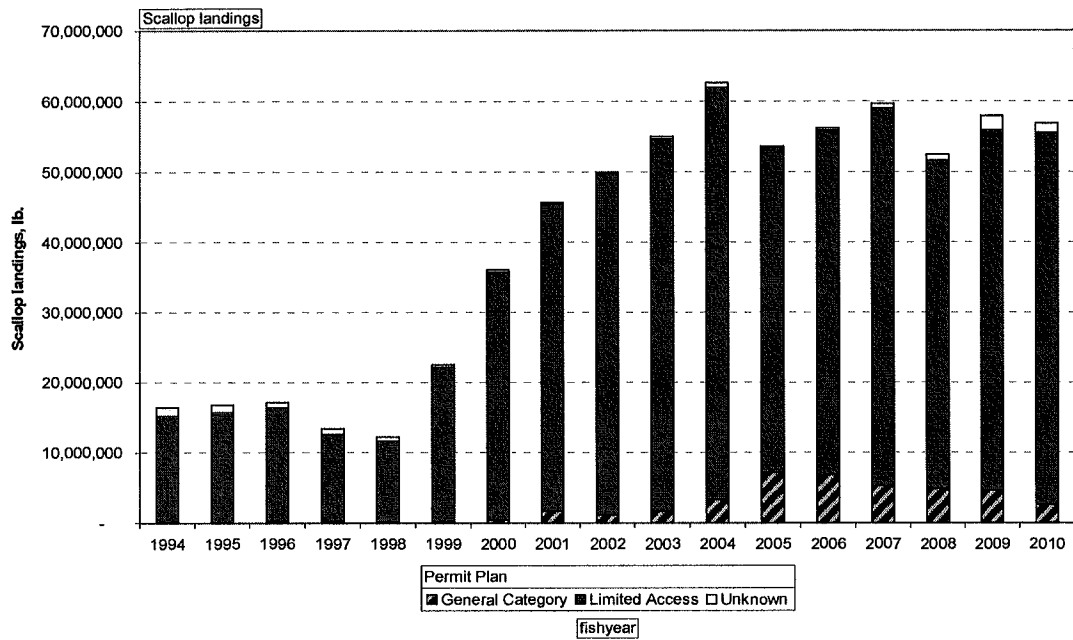


Figure 2. Scallop revenue by permit category and fishing year in 2010 inflation adjusted prices (dealer data)

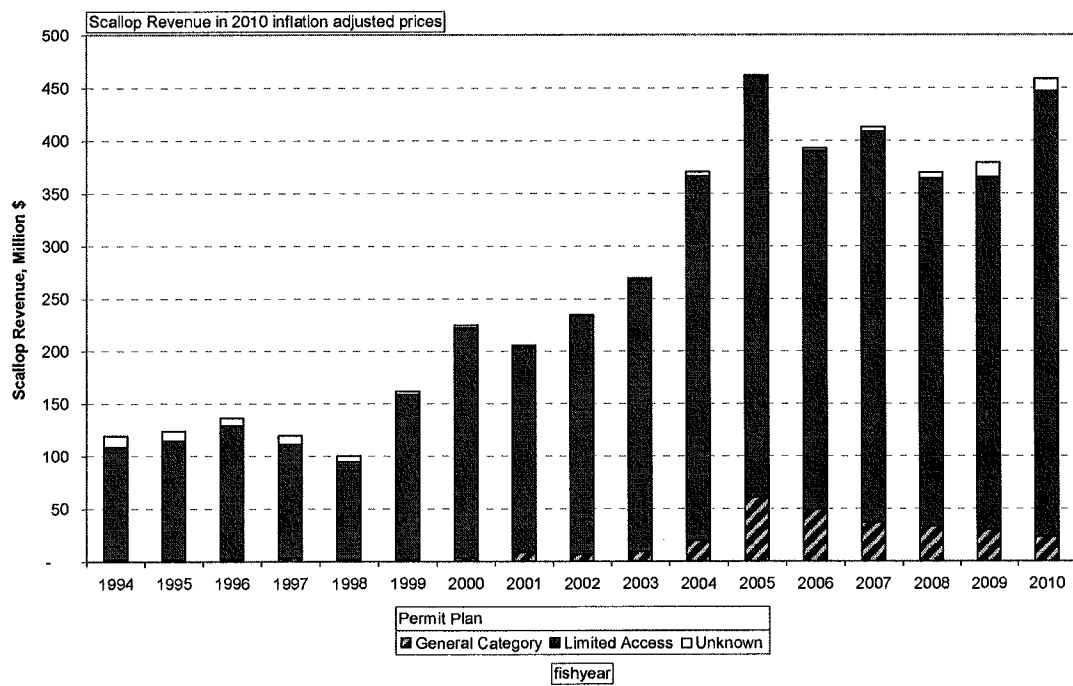
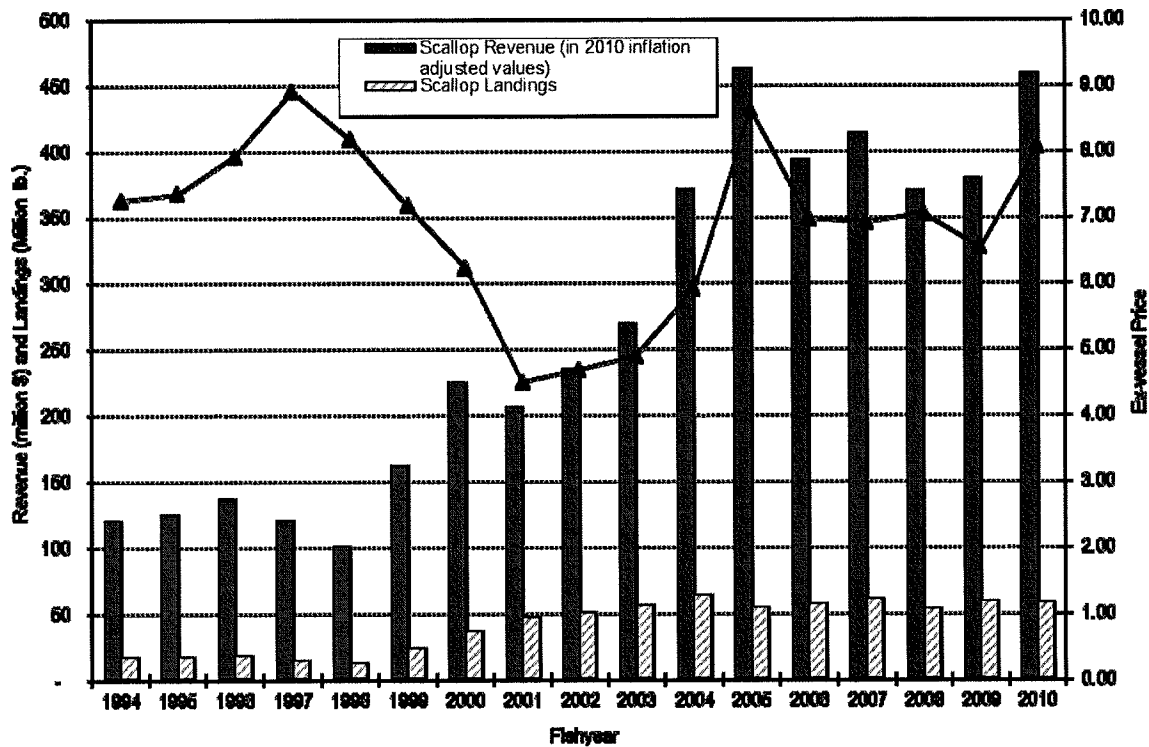


Figure 3. Trends in total scallop landings, revenue and ex-vessel price by fishing year (including limited access and general category fisheries, revenues and prices are expressed in 2010 constant prices)



The trends in revenue per full-time vessel were similar to the trends for the fleet as a whole. Figure 4 shows that average scallop revenue per limited access vessel tripled from about \$400,000 in 1994 to over \$1,200,000 in 2010 as a result of higher landings combined with an increase in ex-vessel price to about \$8.00 per pound of scallops.

Figure 4. Trends in average revenue per full time vessel by category

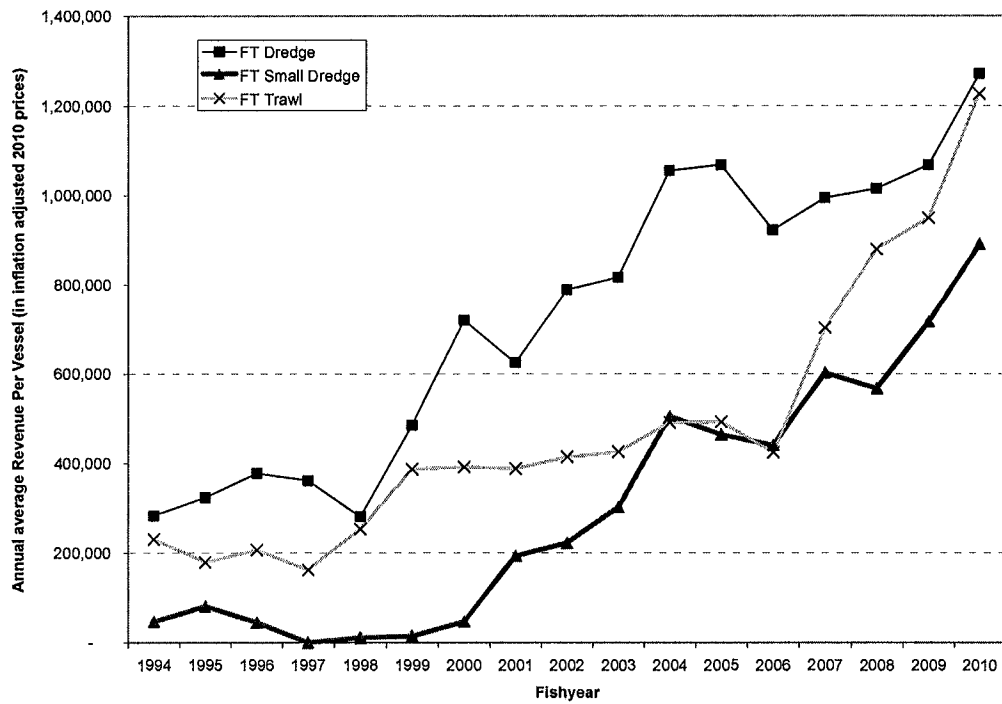


Figure 5. Trends in average scallop landings per full time vessel by category (VTR data)

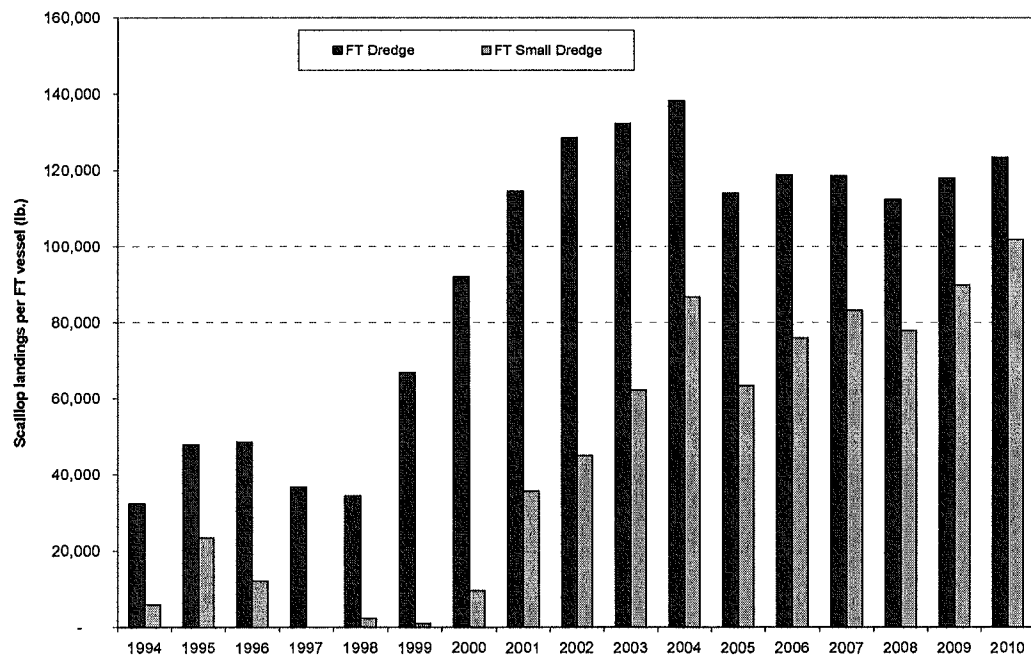


Table 1. Average annual revenue per general category vessel by permit category

FISHYEAR	IFQ	INCI	NGOM	SCG	VMS	GENERAL CATEGORY and IFQ
1994				3,322		3,322
1995				2,838		2,838
1996				4,367		4,367
1997				5,117		5,117
1998				3,713		3,713
1999				3,354		3,354
2000				6,626		6,626
2001				14,316		14,316
2002				10,966		10,966
2003				14,330		14,330
2004		606		25,814	1,748	25,596
2005		5,182		52,897	17,263	40,451
2006		4,880			47,499	44,301
2007	7,959	3,732	3,676		43,910	40,604
2008	38,861	4,387	17,785		38,042	34,113
2009	68,068	12,085	5,140			54,323
2010	75,326	14,362	5,008			56,965

Table 2 describes the fraction of total landings by area for all limited access vessels from 2004-2009. In general, more and more of the total catch for the fishery is coming from access areas, open area catch has declined from 60% to 71% of total catch in 2004-2004 to just under 40% in 2007 and 2008 and to under 53% in 2009.

Table 2 – Percent of total limited access scallop catch by area and calendar year (Dealer and DAS data)

Access Area	2004	2005	2006	2007	2008	2009
Closed Area 1	0.00%	14.51%	0.00%	9.83%	0.00%	0.00%
Closed Area 2	7.19%	13.87%	27.26%	0.00%	0.00%	6.31%
Delmarva	0.00%	0.00%	0.00%	0.00%	0.00%	10.32%
Elephant Trunk	0.00%	0.00%	0.00%	31.04%	49.91%	30.77%
Hudson Canyon	29.24%	0.00%	0.00%	10.02%	0.00%	0.00%
Nantucket Lightship	3.69%	0.00%	16.49%	10.39%	9.84%	0.00%
OPEN	59.87%	71.62%	56.25%	38.71%	40.24%	52.60%

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 2010 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 for the full-time vessels and in the same proportions for the part-time and occasional vessels from their base levels in 1994 (Table 3). As a result, DAS used reached the lowest levels of about 23,000 days in the 1999 and 2000 fishing years from about 35,000 days in 1994 (Figure 6).

Table 3. DAS and trip allocations per full-time vessel

Year	Allocations based on the Management Action	Total DAS Allocation (1)	Estimated Open area DAS allocations (2)	Access area trip allocations (3)	DAS charge per access area trip (4)	DAS allocation estimate for access areas (5)
1994	Amendment 4	204	None	None		None
1995	Amendment 4	182	None	None		None
1996	Amendment 4	182	None	None		None
1997	Amendment 4	164	None	None		None
1998	Amendment 4	142	None	None		None
1999	Amendment 7 Framework 11	120	90 to 120	3	10	0 to 30
2000	Framework 13	120	60 to 120	6	10	0 to 60
2001	Framework 14	120	90 to 120	3	10	0 to 30
2002	Framework 14	120	90 to 120	3	10	0 to 30
2003	Framework 15	120	90 to 120	3	10	0 to 30
2004	Framework 16	126	42 (MAX.62)	7	12	84
2005	Framework 16	100	40 (MAX.117)	5	12	60
2006	Framework 18	112	52	5	12	60
2007	Framework 18	111	51	5	12	60
2008	Framework 19	95	35	5	12	60
2009	Framework 19	97	37	5	12	60
2010	Framework 21	86	38	4	12	48
2011	Framework 22	80	32	4	12	48

Total DAS allocation per full-time vessel represents a rough estimate for years 2004-11 since DAS is allocated for open areas only. DAS allocation for access areas is estimated by assuming an equivalent 12 days-at-sea charge for each access area trip with a possession limit of 18,000 pounds.

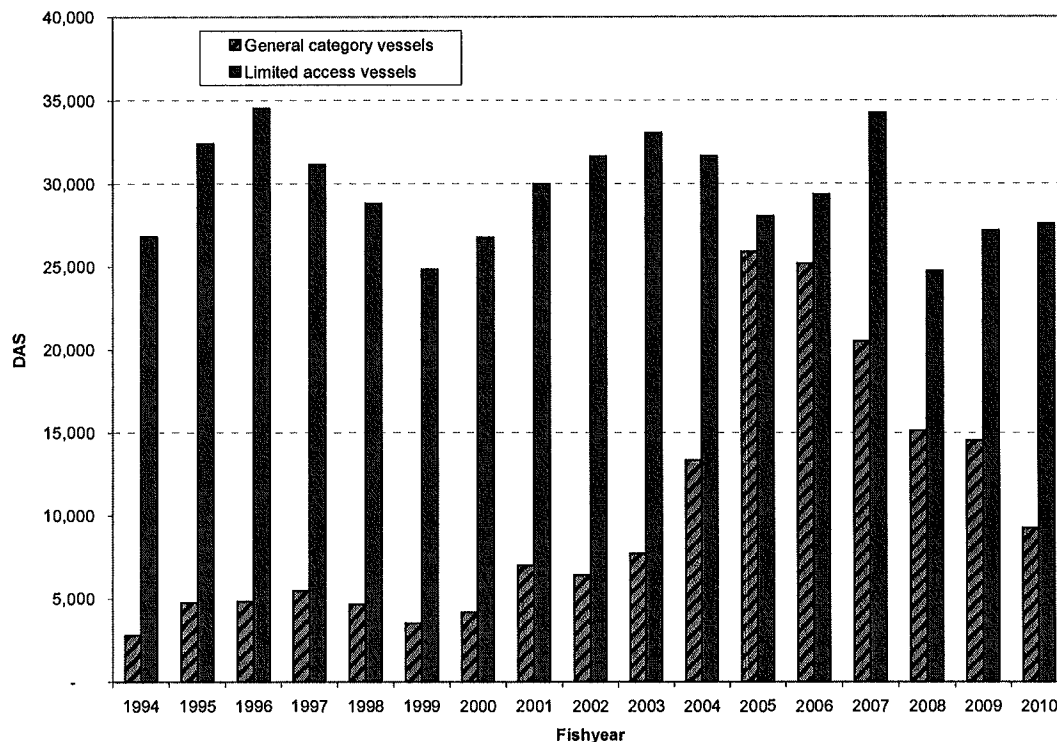
After fishing year 2000, fishing effort started to increase as more limited access vessels participated in the sea scallop fishery. The increase in total effort was mostly due to the increase in the number of vessels because total DAS allocations (mostly less than 120 days) were lower than the DAS allocations in the mid-1990s (over 142 days, Table 3). 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, 45 new limited access vessels became active in the sea scallop fishery after 2000 during the next four fishing years. The total number of full-time equivalent vessels reached 310 in 2003 and total fishing effort by the fleet increased to 31,864 days in 2003 from about 22,627 in 2000 (Table 7).

Total fishing effort (DAS used) declined after 2003 even though the number of active vessels increased to 343 vessels in 2006 from 310 vessels in 2003. The column 1 in of Table 3 shows total DAS allocations (not DAS-used or days fished) including both open and access areas. 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. For the purposes showing the trend in the DAS allocations, the shaded area in Column 1 of Table 3 provides an estimate of total DAS allocation if the same system of DAS charge for the access areas (i.e., 12 DAS charge for each access area trip) continued. Under this scenario, the total DAS allocations would have been reduced to below 90 DAS after 2009 (compared to 204 DAS in 1994) -- again reflecting the dramatic increase in the productivity of the scallop fishery. The open area allocations were reduced to its lowest level, 32 DAS, in 2011 whereas full-time vessels were allocated 4 access area trips in the same year (NEFSC, Framework 21).

Even though total DAS allocations remained around the same levels during 2005-2007 (at about 110 DAS, Table 3), the fishing effort, i.e., fleet DAS used increased in the 2007 fishing year as many vessels took their unused 2005 HCA trips in that year. If not for those HCA trips, the total effort in the scallop fishery would probably have stayed constant during 2005-2007 with almost all qualified limited access vessels participating in the fishery. Total DAS-used declined further in 2008 to 24,121 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 slightly higher in 2010 fishing year 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.

Figure 6. Total DAS-used by plan (VTR data: Date landed – Date sailed)



The impact of the decline in effort below 30,000 days-at-sea 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 2000 pounds per day-at-sea in 2011 in all areas (Figure 7). Figure 8 shows that LPUE for the full-time dredge vessels was higher (about 2100lb. in 2010) than the LPUE of small dredge vessels (about 1600 lb. in 2010).

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 9 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 and data for all limited access vessels including the full-time and part-time small dredges. 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 in 2011, scallop revenue per vessel quadrupled in recent years compared to the levels in mid 1990s.

Figure 7. LPUE by plan (VTR data: Scallop landings/DAS)

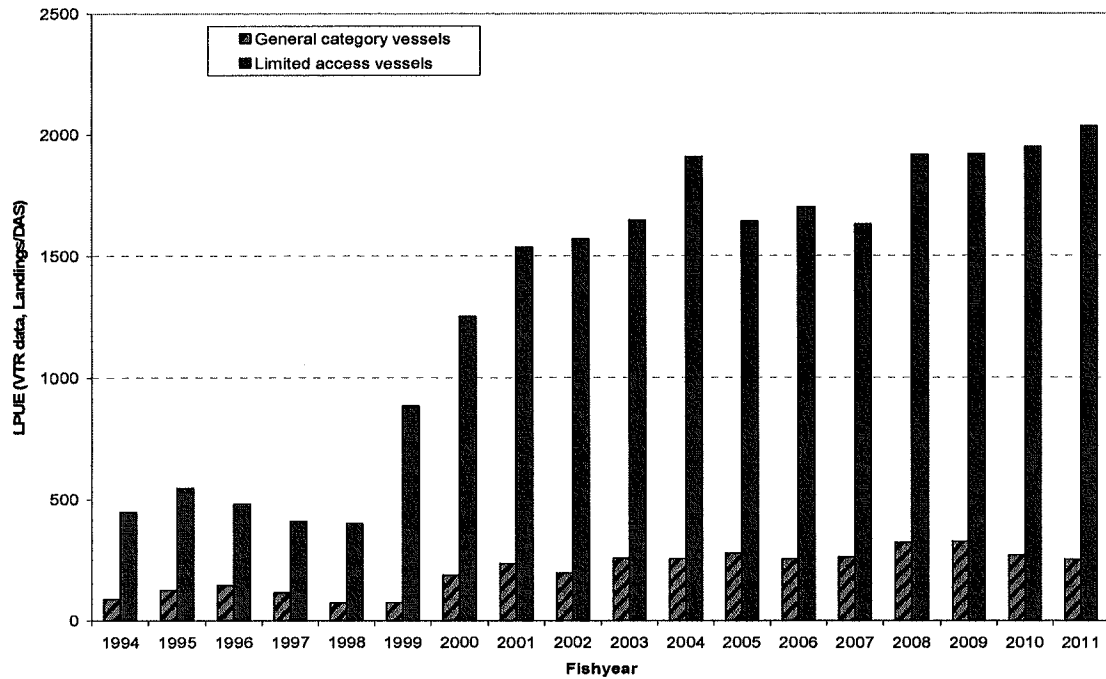


Figure 8. LPUE for the full-time vessels by category (VTR data: Scallop landings/DAS)

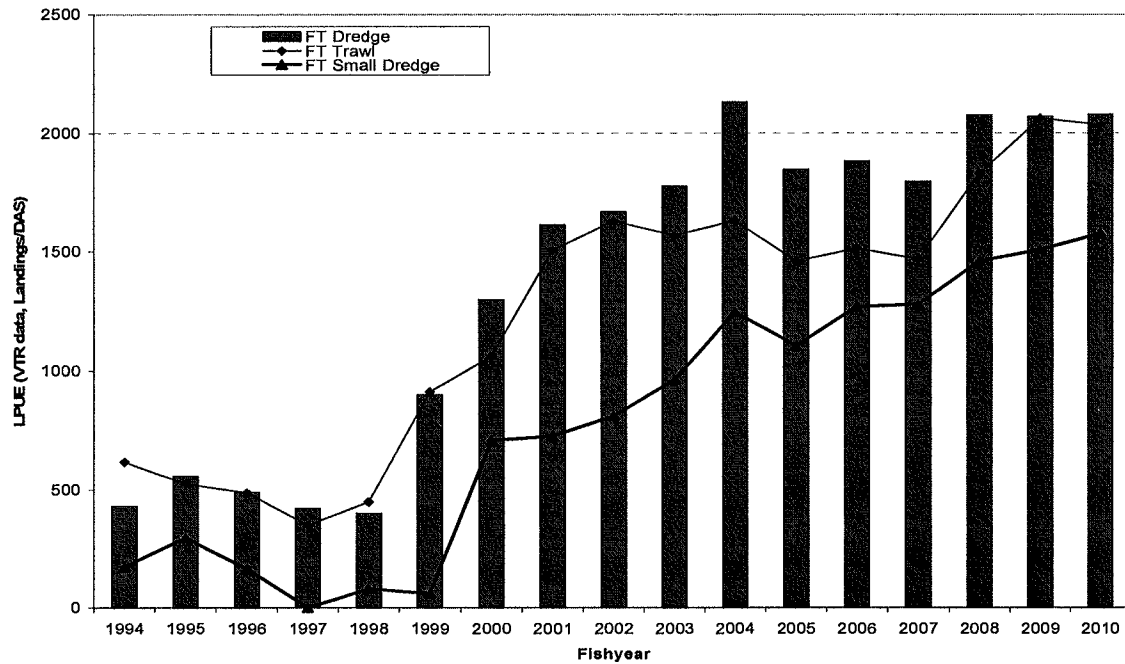
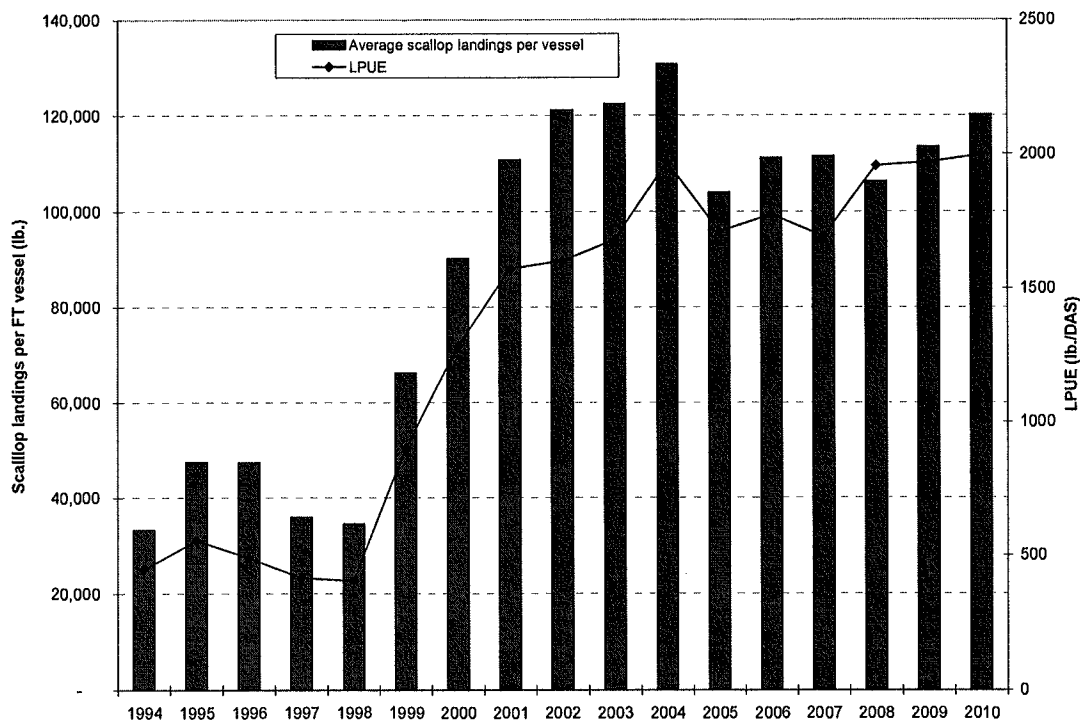


Figure 9. LPUE and average scallop landings per FT vessel (including small dredge, VTR data)



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, and to 15% in 2009 and 2010 compared to less than 10% in 2000-2004. The share of 11-20 count scallops increased from 12% in 1999 to 63% in 2008. On the other hand, the share of 30 or more count scallops declined from 30% in 1999 to 1% in 2008 on (Table 4). Larger scallops priced higher than the smaller scallops contributed to the increase in average scallop prices in recent years despite larger landings (Table 5 and Figure 3).

Table 4. Size composition of scallops

FISHYEAR	U10	11 to 20	21 to 30	>30	UNK	Grand Total
1999	16%	12%	28%	33%	12%	100%
2000	7%	20%	42%	21%	10%	100%
2001	3%	23%	52%	10%	13%	100%
2002	5%	14%	66%	4%	11%	100%
2003	6%	21%	56%	3%	13%	100%
2004	8%	45%	39%	1%	8%	100%
2005	13%	58%	21%	2%	7%	100%
2006	23%	50%	19%	1%	7%	100%
2007	24%	52%	12%	4%	7%	100%
2008	23%	52%	19%	1%	4%	100%
2009	15%	62%	21%	0%	3%	100%
2010	15%	63%	19%	0%	2%	100%
2011	9%	84%	5%	1%	1%	100%

*2011 is for months 3 to 5

Table 5. Price of scallop by market category (in 2010 inflation adjusted prices)

FISHYEAR	U10	11 to 20	21 to 30	>30	UNK	All counts
1999	7.76	7.92	7.32	6.41	7.41	7.17
2000	8.64	6.53	5.82	5.91	6.46	6.24
2001	7.25	4.63	4.37	4.53	4.63	4.58
2002	6.61	4.81	4.55	5.30	4.71	4.74
2003	5.76	4.82	4.84	5.42	4.77	4.90
2004	6.94	6.03	5.61	5.86	5.96	5.93
2005	8.77	8.66	8.51	8.39	8.40	8.62
2006	6.44	7.12	7.46	7.40	6.94	7.02
2007	7.20	6.91	6.67	6.16	6.61	6.90
2008	7.32	7.01	6.87	6.70	7.01	7.05
2009	8.12	6.27	6.23	5.94	6.44	6.53
2010	10.46	7.47	8.20	8.49	8.44	8.09

Table 6. Price of scallop by market category and month in 2011 (in current prices)

MONTH	Market category	Scallop landings	Scallop Revenue	Price
1	UNDER 10 COUNT	83851	945209	11.27
	11-20 COUNT	655345	6399586	9.77
	21-30 COUNT	698,883	6,736,834	9.64
	31-40 COUNT	5,346	50,690	9.48
	41-50 COUNT	587	3,851	6.56
	51-60 COUNT	1	8	8.00
	All categories (total)	1,444,013	14,136,178	9.79
2	UNDER 10 COUNT	59332	659060	11.11
	11-20 COUNT	1568534	14781372	9.42
	21-30 COUNT	403,947	3,786,897	9.37
	31-40 COUNT	2,145	18,573	8.66
	All categories (total)	2,033,958	19,245,902	9.46
3	UNDER 10 COUNT	315358	3254175	10.32
	11-20 COUNT	4464618	41156147	9.22
	21-30 COUNT	388,971	3,591,605	9.23
	31-40 COUNT	26,834	229,867	8.57
	41-50 COUNT	701	5,608	8.00
	All categories (total)	5,196,482	48,237,402	9.28
4	UNDER 10 COUNT	655524	6732977	10.27
	11-20 COUNT	4994297	47838350	9.58
	21-30 COUNT	179,743	1,759,917	9.79
	31-40 COUNT	138,761	1,287,911	9.28
	All categories (total)	5,968,325	57,619,155	9.65
5	UNDER 10 COUNT	79272	783710	9.89
	11-20 COUNT	673394	6754642	10.03
	21-30 COUNT	14,196	146,590	10.33
	31-40 COUNT	4,566	44,674	9.78
	All categories (total)	771,428	7,729,616	10.02
Grand Total		15,414,206	146,968,253	9.53

1.1.5 The trends in participation by permit, vessel characteristics and gear type

Table 7 shows the number of limited access vessels by permit category from 1999 to 2010. The fishery is primarily full-time, with a small number of part-time permits. There no occasional permits left in the fishery since 2009 because these were converted to part-time small dredge. The number of full-time vessels has been on the rise since 1999. Of these permits, the majority are dredge vessels, with a small amount of full-time small dredge and full-time trawl vessels. The permit numbers shown in Table 7 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 8 for 2008-2010. For example, only 347 out of 362 permits in 2008 belonged to unique vessels. If the number of permits in 1999 fishing year included only the number of unique vessels, this would mean an increase in the number of limited access vessels by 56 vessels (347-291), or by about 20% since 1999.

Table 7. Number of limited access vessels by permit category and gear

Permit category	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Full-time	213	220	224	234	238	242	248	255	256	254	259	252
Full-time small dredge	1	3	13	25	39	48	57	59	63	56	55	54
Full-time net boat	16	17	16	16	16	15	19	14	12	11	11	11
Total full-time	230	240	253	275	293	305	324	328	331	321	326	317
Part-time	12	16	14	14	10	4	3	3	2	2	2	2
Part-time small dredge	3	4	6	8	19	26	30	34	35	32	34	34
Part-time trawl	22	20	18	10	8	3	-	-	-	-	-	-
Total part-time	37	40	38	32	37	33	33	37	37	34	37	38
Occasional	4	4	5	4	3	3	1	2	1	1	-	-
Occasional trawl	20	16	19	15	8	5	5	-	-	-	-	-
Total occasional	24	20	24	19	11	8	6	2	1	1	0	0
Total Limited access	291	300	315	326	342	346	363	367	369	356	361	353

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

Permit category	2008	2009	2010
Full-time	250	250	250
Full-time small dredge	52	52	52
Full-time net boat	11	11	11
Total full-time	313	313	313
Part-time	2	2	2
Part-time small dredge	31	32	32
Part-time trawl	0	0	0
Total part-time	33	34	34
Occasional	1	0	0
Total Limited access	347	347	347

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 (Table 9 to Table 11). This additional effort was likely a contributing factor to why the FMP has been exceeding the fishing mortality targets.

Table 9. Landings by permit before and after Amendment 11 implementation

FISHYEAR	General Category	Limited Access	Unknown	Grand Total
1994	155,753	15,107,654	1,193,884	16,457,291
1995	126,048	15,676,908	1,077,109	16,880,065
1996	205,298	16,254,229	759,125	17,218,652
1997	288,166	12,339,685	821,314	13,449,165
1998	202,479	12,723,539	677,119	13,603,137
1999	226,887	42,740,919	649,699	43,617,505
2000	428,381	35,318,473	353,840	36,100,694
2001	1,672,371	43,860,659	189,982	45,723,012
2002	1,127,517	48,784,134	130,284	50,041,935
2003	1,662,583	53,085,545	346,720	55,094,848
2004	3,300,533	58,688,370	652,172	62,641,075
2005	7,223,454	46,254,403	186,591	53,664,448
2006	6,866,906	49,129,873	286,369	56,283,148
2007	5,290,005	53,764,919	627,346	59,682,270
2008	4,814,206	46,827,732	848,239	52,490,177
2009	4,665,389	51,276,749	2,036,357	57,978,495
2010	2,633,885	52,913,504	1,364,278	56,911,667

Table 10. Landings by permit before and after Amendment 11 implementation

FISHYEAR	General Category	Limited Access	Unknown	Grand Total
1994	0.95%	91.80%	7.25%	100.00%
1995	0.75%	92.87%	6.38%	100.00%
1996	1.19%	94.40%	4.41%	100.00%
1997	2.14%	91.75%	6.11%	100.00%
1998	1.49%	93.53%	4.98%	100.00%
1999	0.52%	97.99%	1.49%	100.00%
2000	1.19%	97.83%	0.98%	100.00%
2001	3.66%	95.93%	0.42%	100.00%
2002	2.25%	97.49%	0.26%	100.00%
2003	3.02%	96.35%	0.63%	100.00%
2004	5.27%	93.69%	1.04%	100.00%
2005	13.46%	86.19%	0.35%	100.00%
2006	12.20%	87.29%	0.51%	100.00%
2007	8.86%	90.09%	1.05%	100.00%
2008	9.17%	89.21%	1.62%	100.00%
2009	8.05%	88.44%	3.51%	100.00%
2010	4.63%	92.97%	2.40%	100.00%

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. Since the

full implementation of Amendment 11 provisions did not occur until March 2010, it is too early to assess the impacts this amendment on the ownership patterns in the general category vessels. Table 11 shows, however, that the number of general category permits 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 11). The number of active IFQ vessels were 228 in 2009 but declined to 179 vessels in 2010 fishing year as some vessels leased their quota to others (Table 12).

Table 11. General category permit before and after Amendment 11 implementation

AP_YEAR	General category permit (up to 2008)	Number of permits qualify under Amendment 11 program			Grand Total
		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

Table 12. Number of active general category vessels by permit category

FISHYEAR	IFQ	INCI	NGOM	SCG	VMS	Total
2009	228	44	18			290
2010*	179	83	17			279

*Preliminary numbers. Source: Dealer and permit data

1.1.6 Landings by permit and gear type

Table 13 through Table 14 describe scallop landings by limited access vessels by gear type and permit category. These tables are obtained from the dealer and permit data. 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 7). Furthermore, according to the 2009-2010 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 14 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 14 shows that the percentage of landings by FT trawl permits declined after 1998 to about 3% of total limited access scallop landings in 2010. There were only 11 FT trawl permits in 2010. However, 2009-2010 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. About 80% of the scallop pounds are landed by vessels with full-time dredge and about 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 2009-2010.

Table 13. Scallop landings (lbs.) by limited access vessels by permit category and gear

FISHYEAR	FT Dredge	PT Dredge	FT SD	PT SD	FT TRW*	PT TRW	OC TRW
1994	12,729,405	130,920	43,337	7,403	1,591,902	413,968	75,741
1995	13,782,818	212,920	42,944	10,017	1,441,128	139,847	45,545
1996	14,211,552	270,264	28,644	13,336	1,268,170	366,585	93,375
1997	11,079,661	148,742		15,832	850,573	237,763	7,114
1998	9,896,080	84,929	NA	NA	1,194,558	351,722	3,817
1999	19,648,888	303,397	NA	14,680	1,533,002	581,569	16,133
2000	31,969,183	658,551	NA	80,741	1,871,048	710,032	15,226
2001	38,698,661	875,343	732,863	208,142	2,579,856	747,960	17,140
2002	42,254,657	918,534	1,807,975	186,713	2,980,542	601,455	32,026
2003	45,599,018	932,815	3,145,092	521,523	2,612,065	272,668	834
2004	49,117,614	323,389	5,765,756	847,271	2,490,766	125,949	17,387
2005	38,177,586	236,757	4,873,378	1,461,786	1,480,018		14,833
2006	40,836,448	129,339	5,466,942	1,311,340	1,377,394		NA
2007	43,278,114	187,931	7,001,975	1,618,641	1,678,258		
2008	37,675,723	176,223	6,105,504	1,344,668	1,525,614		
2009	41,102,196	NA	6,900,112	1,337,335	1,821,156		
2010	42,473,103	NA	6,707,658	1,774,340	1,786,420		

*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 14. Percentage of scallop landings (lbs.) by limited access vessels by permit category and gear

FISHYEAR	FT Dredge	PT Dredge	FT SD	PT SD	FT TRW*	PT TRW	OC TRW
1994	85%	1%	0%	0%	11%	3%	1%
1995	88%	1%	0%	0%	9%	1%	0%
1996	87%	2%	0%	0%	8%	2%	1%
1997	90%	1%	0%	0%	7%	2%	0%
1998	86%	1%	0%	0%	10%	3%	0%
1999	89%	1%	0%	0%	7%	3%	0%
2000	91%	2%	0%	0%	5%	2%	0%
2001	88%	2%	2%	0%	6%	2%	0%
2002	87%	2%	4%	0%	6%	1%	0%
2003	86%	2%	6%	1%	5%	1%	0%
2004	84%	1%	10%	1%	4%	0%	0%
2005	83%	1%	11%	3%	3%	0%	0%
2006	83%	0%	11%	3%	3%	0%	0%
2007	80%	0%	13%	3%	3%	0%	0%
2008	80%	0%	13%	3%	3%	0%	0%
2009	80%	0%	13%	3%	4%	0%	0%
2010	80%	0%	13%	3%	3%	0%	0%

*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.

Table 15 through Table 17 describe general category landings by gear type. These tables are generated by VTR data and since not all VTR records include gear information, the number of vessels in these tables will differ from other tables that summarize general category vessels and landings from dealer data. Primary gear is defined as the gear used to land more than 50% of scallop pounds. Most general category effort is and has been from vessels using scallop dredge and other trawl gear. The number of vessels using scallop trawl gear increased through 2006 but has declined in recent years. In terms of landings, most scallop landings under general category are with dredge gear, with significant amounts also landed by scallop trawls and other trawls. Table 16 shows the percent of general category landings by primary gear and year. The percentages of scallop landings with other trawl gear in 2008 and 2009 were the highest they have been since 2001, but still significantly less than dredge.

Table 15. Number of general category vessels by primary gear and fishing year

Year	DREDGE, OTHER	DREDGE, SCALLOP	MISC.	TRAWL, OTHER	TRAWL, SCALLOP
1994	*	33	4	42	*
1995	4	91	5	48	4
1996	7	101	13	49	*
1997	6	118	9	55	
1998	10	100	8	52	*
1999	10	87	*	61	5
2000	7	78	9	91	*
2001	4	122	7	118	6
2002	*	147	*	104	9
2003	6	155	*	116	17
2004	8	218	10	173	34
2005	24	280	*	175	56
2006	28	369	5	151	58
2007	26	280	4	124	30
2008	9	130	5	62	21
2009	8	135	*	57	28
2010	11	102		40	16

* indicates 3 or less vessels

UNK - value unknown

Table 16. General category scallop landings by primary gear (pounds)

Year	DREDGE, OTHER	DREDGE, SCALLOP	MISC.	TRAWL, OTHER	TRAWL, SCALLOP
1994	*	144,139	260	9,564	*
1995	4,812	501,910	1,146	43,585	11,797
1996	1,352	578,884	3,314	19,460	*
1997	3,253	682,270	3,465	30,227	
1998	6,049	334,930	2,443	19,677	3,750
1999	18,322	236,482	*	17,537	3,970
2000	6,446	303,168	1,411	173,827	8,179
2001	91,939	1,254,153	6,518	404,709	28,276
2002	*	1,266,144	*	74,686	41,977
2003	22,614	1,590,575	484	171,511	196,376
2004	36,260	2,499,393	2,359	422,426	340,921
2005	187,571	4,808,194	*	721,039	885,559
2006	189,786	5,583,477	5,431	399,909	549,745
2007	142,044	4,519,800	724	222,931	398,883
2008	88,761	2,596,790	1,502	525,675	290,179
2009	72,766	2,690,335	*	840,019	376,905
2010	62,650	1,594,659		250,839	172,630

* indicates 3 or less vessels

Table 17. Percentage of general category scallop landings by primary gear

Year	DREDGE, OTHER	DREDGE, SCALLOP	MISC.	TRAWL, OTHER	TRAWL, SCALLOP
1994	0.07%	92.00%	0.17%	6.10%	1.66%
1995	0.85%	89.11%	0.20%	7.74%	2.09%
1996	0.22%	95.74%	0.55%	3.22%	0.27%
1997	0.45%	94.86%	0.48%	4.20%	UKN
1998	1.65%	91.30%	0.67%	5.36%	1.02%
1999	6.62%	85.40%	0.22%	6.33%	1.43%
2000	1.31%	61.49%	0.29%	35.26%	1.66%
2001	5.15%	70.24%	0.37%	22.67%	1.58%
2002	1.56%	90.08%	0.07%	5.31%	2.99%
2003	1.14%	80.27%	0.02%	8.66%	9.91%
2004	1.10%	75.71%	0.07%	12.80%	10.33%
2005	2.84%	72.82%	0.01%	10.92%	13.41%
2006	2.82%	82.98%	0.08%	5.94%	8.17%
2007	2.69%	85.53%	0.01%	4.22%	7.55%
2008	2.53%	74.13%	0.04%	15.01%	8.28%
2009	1.83%	67.58%	0.02%	21.10%	9.47%
2010	3.01%	76.64%	UKN	12.06%	8.30%

1.1.7 Trends in ownership patterns in the scallop fishery

1.1.7.1 Limited access vessels

According to the ownership data for 2008, only 75 out of 346 vessels were owned by one person and/or cooperation (Table 19). The ownership structure 2011 was similar with 71 out of 343 vessels belonged to single boat owners (Table 20). The rest were owned by several individuals and/or different corporations with ownership interest in more than one vessel. This factor makes it difficult assigning each vessel to a specific group of owners. The following tables were generated by selecting a primary owner for each group of vessels that are owned by multiple individuals/entities based on the maximum number of vessels owned by one person/entity. For example, if Mr. A and Mrs. B were listed as the joint owners of the same 5 vessels, but Mrs. B was also listed as an owner of additional two vessels, Mrs. B has been assigned as the primary owner of these 7 vessels. Therefore, each owner group in Table 19 includes more than one person (usually several family members), who collectively own the corresponding number of vessels. For example, in the 16 to 17 category, 4 different sets of owners owned 56 boats in 2008 with each of the 4 sets containing multiple individuals/entities.

Because there were overlaps with owners for multiple vessels, such that two people has ownership interest in 5 boats, primary ownership was assigned to one person in 3 out of 5 boats, and the other person was assigned the 2 remaining boats. Another example includes common ownership of a vessel, with each individual also owning another vessel: Vessel A was owned by Mr. A, but Mr. A also owned another boat, Vessel B together with Mr. B, who owned 5 boats.

As a result, vessel B was assigned to Mr. B because he is a 5 boat owner. As a result, Mr. A was classified as a multi-boat owner even though only one vessel's ownership (Vessel A) was assigned to him.

Table 19 shows that only 22% of the limited access vessels were owned by one person, whereas 16% of the vessels are owned by 4 separate entities (group of individuals). The concentration of ownership could be even more than shown in Table 19 because not all family relationships could be taken into account according to the method applied above. The owners of 16 to 17 vessels (4 entities) landed about 16% of scallops in 2008 fishing year, and owners of 6 to 9 vessels (11 separate entities) landed over 21% of scallops in the same fishing year, amounting to over 37% of the scallops landings by these two groups (Table 25). The landings by single boat owners amounted to about 20% of the total fleet landings in 2008.

Table 18. Number of unique owners by plan and category (2011)

Plan	Category	Number of owners	Average number of vessels owned per owner	Number of vessels
SC	FT	100	2.5	248
	OT	2	1.0	2
	FTSD	37	1.4	50
	PTSD	24	1.3	32
	FTTRW	8	1.4	11
SC Total		171	2.0	343
LGC	A	191	1.4	259
	B	74	1.3	93
	C	151	1.8	269
LGC Total		416	1.5	621
Grand Total		587	1.6	964

Table 19. Limited Access vessels -Owner groups according to the number of vessels with ownership interest (2008)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	75	75	22%
2	26	52	15%
3	10	29	8%
4	10	37	11%
5	5	23	7%
6 to 9	11	74	21%
16 to 17	4	56	16%
Grand Total	141	346	100%

Table 20. Limited Access vessels (all categories) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	71	71	21%
2	27	54	16%
3	13	39	11%
4	7	28	8%
5	4	20	6%
6 to 9	11	77	22%
11 to 17	4	54	16%
Grand Total	137	343	100%

Table 21. Limited Access vessels (FT dredge) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	54	54	22%
2	18	36	15%
3	8	24	10%
4	4	16	6%
5	7	35	14%
6 to 9	5	37	15%
11 to 15	4	46	19%
Grand Total	100	248	100%

Table 22. Limited Access vessels (FT Small dredge) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	24	24	48%
2	13	26	52%
Grand Total	37	50	100%

Table 23. Limited Access vessels (FT trawl) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	5	5	45%
2	3	6	55%
Grand Total	8	11	100%

Table 24. Limited Access vessels (PT small dredge) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	17	17	53%
2-3	7	15	47%
Grand Total	24	32	100%

Table 25. Percentage of Scallop landings by limited access vessels according to the number of vessels owned and FISHYEAR

Number of vessels owned in 2008	2005	2006	2007	2008	2009
1	18.34%	20.15%	19.88%	20.09%	19.25%
2	9.81%	10.39%	10.15%	11.70%	11.53%
3	9.13%	9.91%	10.86%	10.67%	10.97%
4	10.75%	9.71%	10.90%	11.39%	11.00%
5	4.35%	5.16%	5.31%	5.53%	6.29%
6-9	21.15%	21.87%	22.18%	21.56%	20.43%
16-17	16.48%	16.02%	16.08%	16.16%	15.60%
Unknown	9.99%	6.78%	4.64%	2.90%	4.93%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%

1.1.7.2 Ownership by Limited Access General Category Vessels

Table 26. General category vessels (all-not just ITQ) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	281	75	281
2	54	52	108
3	18	29	54
4	8	37	32
5	2	23	10
6 to 9	5	74	33
10 to 15	8	56	103
Grand Total	376	346	621

Table 27. General category vessels (ITQ – cat A) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	155	155	60%
2	26	52	20%
3	4	12	5%
4	3	12	5%
6 to 9	2	13	5%
10 to 15	1	15	6%
Grand Total	191	259	100%

Table 28. General category vessels (INCI– cat C) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	107	107	40%
2	25	50	19%
3	6	18	7%
4	3	12	4%
5	3	15	6%
6 to 9	3	24	9%
10 to 15	4	43	16%
Grand Total	151	269	100%

Table 29. General category vessels (NGOM– cat B) - Owner groups according to the number of vessels with ownership interest (2011)

Owner group according to number of vessels owned	Number of owners	Number of vessels	Number of vessels owned as a % of all vessels
1	59	59	63%
2	11	22	24%
3	4	12	13%
Grand Total	74	93	100%

1.1.8 Trends in Foreign Trade

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 especially of larger scallops led to a tripling of U.S. exports of scallops from about 5 million pounds in 1999 to about 25 million pounds per year since 2005 (Figure 10).

Figure 1 shows exports from New England and Mid-Atlantic ports combined including fresh, frozen and processed scallops. Although exports include exports of bay, calico or weathervane scallops, it mainly consists of sea scallops. France and other European countries were the main importers of US scallops. The exports from all other states and areas totaled only about \$1 million in 2006 and 2007, and thus were not considered significant. Imports of scallops fluctuated between 45 million pounds and 60 million pounds during the period from 1999 to 2009.

Because of the increase in the value of scallop exports to over \$130 million after 2004, the difference in the value of exported and imported scallops, that is scallop trade deficit, declined considerably (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 from over \$230 million in 1994 to less than \$80 million in 2009. In 2010, exports were about 25 million lb. and imports were 51.9 million lb. From January to May 2011, exports were 10.9 million lb. and imports were 35 million lb.

Figure 10 - Scallop imports and exports in lb. (by calendar year)

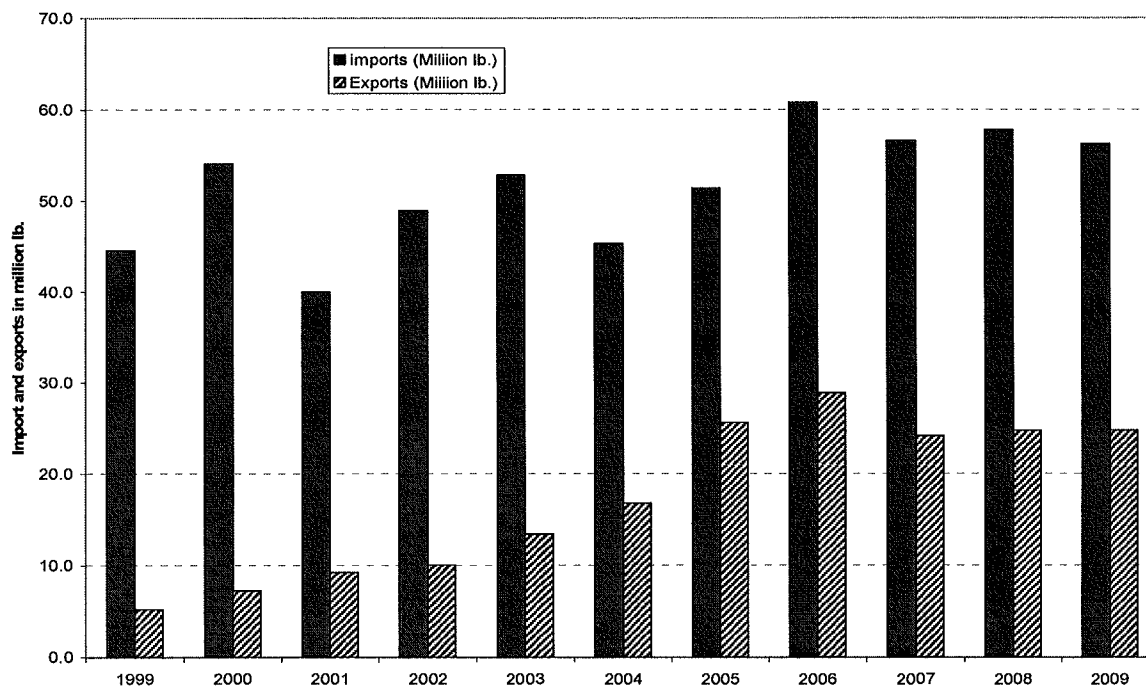
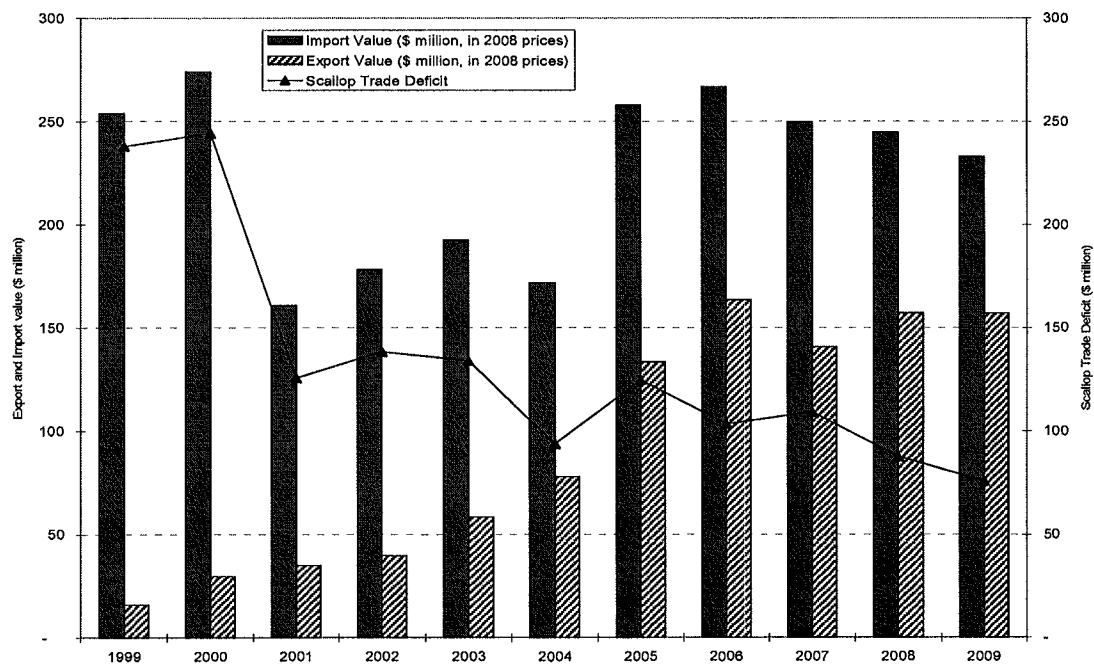


Figure 11. Value of Scallop imports and exports (by calendar year)



1.1.9 Dependence on the Scallop Fishery

Both full-time and part-time limited access vessels had a high dependence on scallops as a source of their income. Full-time limited access vessels had a high dependence on scallops as a source of their income and the majority of the full-time vessels (94%) derived more than 90% of their revenue from the scallop fishery in 2010 (Table 30). Comparatively, part-time limited access vessels were less dependent on the scallop fishery in 2010, with only 46% of part-time vessels earning more than 90% of their revenue from scallops (Table 30).

Table 31 shows that general category permit holders (IFQ and NGOM) are less dependent on scallops compared to vessels with limited access permits. In 2010, only about half (49%) of IFQ permitted vessels earned greater than 50% of their revenue from scallops. Among NGOM permitted vessels, only 31% earned more than 50% of their revenue from scallops in 2010. Scallops still comprise the largest proportion of the revenue for these general category vessels, accounting for 59% - 66% of the revenue for IFQ and NGOM vessels respectively (Table 31). The composition of revenue for the general category vessels are shown in Table 32.

The relative ease with which a vessel is able to switch between fisheries is an indicator of the dependence on any one fishery or species. Table 33 and Table 34, show the number and percentage of scallop vessels with permits from other fishery management plans, while Table 33 to Table 38 show the number scallop vessels that have actual landings of other species. Together, Table 33 through Table 36 describe a limited access fishery where a large percentage of vessels have permits in other fisheries but relatively few vessels actually landing species other than scallops. Alternatively, Table 37 and Table 38 show a general category fishery where a large percentage of vessels have permits in other fisheries and landings of corresponding species.

Table 30. Dependence of scallop revenue by limited access vessels

Permit Category	Scallop Revenue as % of total	2008		2009		2010	
		number of vessels	%	number of vessels	%	number of vessels	%
FT Vessels	<75%	9	3%	5	2%	7	2%
	75% - 89%	13	4%	19	6%	13	4%
	>=90%	289	93%	286	92%	294	94%
Total		311	100%	310	100%	314	100%
PT vessels	<75%	8	24%	13	38%	10	29%
	75% - 89%	9	27%	5	15%	9	26%
	>=90%	16	48%	16	47%	16	46%
Total		33	100%	34	100%	35	100%

Table 31. Dependence of scallop revenue by limited access general category vessels

	Scallop revenue as % of total	2008		2009		2010	
		number of vessels	%	number of vessels	%	number of vessels	%
IFQ	<10%	93	34%	83	28%	104	40%
	10%-49%	29	11%	35	12%	28	11%
	50%-74%	30	11%	37	13%	21	8%
	75%-89%	20	7%	20	7%	17	7%
	>=90%	101	37%	117	40%	87	34%
	total	273	100%	292	100%	257	100%
NGOM	<10%	62	75%	81	73%	69	69%
	10%-49%	1	1%	3	3%	0	0%
	50%-74%	1	1%	2	2%	2	2%
	75%-89%	0	0%	2	2%	3	3%
	>=90%	19	23%	23	21%	26	26%
	total	83	100%	111	100%	100	100%

Source: Dealer data

Table 32. Composition of Revenue for the Limited Access general category vessels

		2008	2009	2010
LAGC-IFQ	SCALLOP, SEA	\$54,611,430	\$61,830,208	\$63,876,082
		56.6%	60.0%	58.9%
	ANGLER (Monkfish)	\$3,734,651	\$2,361,064	\$2,493,993
		3.9%	2.3%	2.3%
	COD	\$4,898,074	\$4,019,511	\$3,876,726
		5.1%	3.9%	3.6%
	FLOUNDER, SUMMER	\$3,698,632	\$4,785,894	\$5,868,179
		3.8%	4.6%	5.4%
	FLOUNDER, WINTER	\$4,166,803	\$3,824,637	\$3,066,536
		4.3%	3.7%	2.8%
	FLOUNDER, YELLOWTAIL	\$1,690,604	\$1,602,142	\$1,410,653
		1.8%	1.6%	1.3%
	HADDOCK	\$4,651,154	\$5,174,473	\$7,029,055
		4.8%	5.0%	6.5%
	LOBSTER	\$2,786,921	\$2,186,324	\$2,221,060
		2.9%	2.1%	2.0%
	QUAHOG, OCEAN	\$3,791,416	\$3,353,203	\$4,599,680
		3.9%	3.3%	4.2%
	Total Landings	\$96,518,981	\$103,000,207	\$108,390,818
		100.0%	100.0%	100.0%
LAGC-NGO	SCALLOP, SEA	\$22,566,591	\$28,053,031	\$38,543,812
		65.7%	59.8%	66.4%
	ANGLER(Monkfish)	\$1,716,043	\$1,763,163	\$2,038,291
		5.0%	3.8%	3.5%
	COD	\$3,124,253	\$3,738,593	\$4,022,694
		9.1%	8.0%	6.9%
	FLOUNDER, YELLOWTAIL	\$349,864	\$398,184	\$322,207
		1.0%	0.8%	0.6%
	HADDOCK	\$447,007	\$553,169	\$483,412
		1.3%	1.2%	0.8%
	HERRING, ATLANTIC	\$4,014	\$2,550,621	\$2,104,231
		0.0%	5.4%	3.6%
	LOBSTER	\$1,898,778	\$1,709,428	\$1,636,627
		5.5%	3.6%	2.8%
	POLLOCK	\$1,175,606	\$1,673,292	\$1,261,349
		3.4%	3.6%	2.2%
	Total Landings	\$34,368,969	\$46,921,191	\$58,059,974
		100.0%	100.0%	100.0%

Table 33. Other Fishery Management Plan permits held FY 2010, by scallop limited access boats.

Plan	Desc.	Count of PERMIT	
BLU	Bluefish	321	92%
BSB	Black Sea Bass	143	41%
DOG	Dogfish	336	96%
FLS	Summer Flounder	298	85%
HRG	Herring	287	82%
LO	Lobster	227	65%
MNK	Monkfish	344	98%
MUL	Multispecies	334	95%
OQ	Ocean Quahog	288	82%
RCB	Red Crab	273	78%
SC	Scallop LA	350	100%
LGC	Scallop LAGC	182	52%
SCP	Scup	135	39%
SF	Surf Clam	285	81%
SKT	Skate	314	90%
SMB	Squid/Mackerel/Butterfish	329	94%
TLF	Tilefish	304	87%

Table 34. Other Fishery Management Plan permits held FYI 2009, by scallop LAGC boats, separated by permit category.

Plan	Desc.	A	%	B	%	C	%
BLU	Bluefish	285	86%	111	91%	253	88%
BSB	Black Sea Bass	112	34%	33	27%	143	50%
DOG	Dogfish	287	86%	115	94%	270	94%
FLS	Summer Flounder	175	53%	51	42%	214	75%
HRG	Herring	254	76%	113	93%	243	85%
LGC	Scallop LAGC	333	100%	122	100%	286	100%
LO	Lobster	183	55%	98	80%	205	72%
MNK	Monkfish	300	90%	115	94%	273	95%
MUL	Multispecies	270	81%	115	94%	263	92%
OQ	Ocean Quahog	202	61%	65	53%	219	77%
RCB	Red Crab	223	67%	87	71%	226	79%
SC	Scallop LA	40	12%	28	23%	114	40%
SCP	Scup	118	35%	39	32%	151	53%
SF	Surf Clam	196	59%	67	55%	222	78%
SKT	Skate	286	86%	108	89%	257	90%
SMB	Squid/Mackerel/Butterfish	274	82%	109	89%	260	91%
TLF	Tilefish	249	75%	94	77%	254	89%

Table 35. Number of Full-time vessels with landings of corresponding species (includes fisheries with 5 or more vessels participating)

Species	2005	2006	2007	2008	2009	2010
ANGLER (Monkfish)	251	257	274	271	248	236
BLUEFISH	28	25	23	19	24	24
BUTTERFISH	6	8	9	17	13	12
COD	15	12	7	8	7	9
CROAKER, ATLANTIC	6	6	7	11	11	9
FLOUNDER, AM. PLAICE	15	10	5	6	8	7
FLOUNDER, SUMMER	80	83	76	74	68	82
FLOUNDER, WINTER	28	28	37	26	15	14
FLOUNDER, WITCH	19	18	12	10	15	9
FLOUNDER, YELLOWTAIL	24	15	15	11	18	52
HADDOCK	14	10	6	7	6	7
LOBSTER	24	12	12	11	10	15
SCALLOP, SEA	305	308	310	307	308	314
SCUP	25	19	15	16	20	31
SEA BASS, BLACK	30	26	21	22	24	27
SKATES(RACK)	12	8	5	7	5	10
SQUID (LOLIGO)	33	29	26	22	30	24
WEAKFISH, SQUETEAGUE	10	14	12	15	12	13

Table 36. Number of Part-time and occasional vessels with landings of corresponding species (includes fisheries with 5 or more vessels participating)

Row Labels	2005	2006	2007	2008	2009	2010
ANGLER	29	39	30	31	24	30
BLUEFISH	12	16	14	11	16	15
BUTTERFISH	7	7	7	8	5	5
CROAKER, ATLANTIC	6	6	10	4	6	5
EEL, CONGER	3	3	4	5	4	6
FLOUNDER, SUMMER	25	28	24	23	22	24
FLOUNDER, YELLOWTAIL	3	3	1	2	3	6
HAKE, SILVER	5	5	6	6	5	5
MACKEREL, ATLANTIC	6	7	6	4	6	8
MENHADEN	1	3	3	2	1	5
SCALLOP, SEA	32	40	33	35	32	35
SCUP	16	12	12	11	10	17
SEA BASS, BLACK	20	16	18	17	16	19
SHRIMP,BROWN	1	3	3		6	6
SQUID (ILLEX)	10	3	1	1	6	8
SQUID (LOLIGO)	19	17	19	11	16	11
TILEFISH, GOLDEN	3	2	2	3	3	8
WEAKFISH, SQUETEAGUE	5	10	10	8	8	6
WHITING, KING	3	6	10	3	6	9

Table 37. Number of LAGC-IFQ vessels with landings of corresponding species (includes fisheries with 10 or more vessels participating in 2010)

Species	2008	2009	2010
ANGLER	212	225	196
SCALLOP, SEA	231	245	192
FLOUNDER, SUMMER	122	128	126
BLUEFISH	60	85	78
LOBSTER	88	81	77
COD	83	79	73
FLOUNDER, YELLOWTAIL	80	80	72
SKATES(RACK)	78	78	70
SQUID (LOLIGO)	53	72	66
FLOUNDER, WITCH	78	70	65
SEA BASS, BLACK	58	66	65
SCUP	47	50	61
FLOUNDER, WINTER	93	79	60
HADDOCK	69	64	55
FLOUNDER, AM. PLAICE	68	69	54
POLLOCK	62	58	53

HAKE, SILVER	51	55	51
BUTTERFISH	44	59	49
HAKE, WHITE	57	51	46
SKATE, WINTER(BIG)	32	44	46
DOGFISH SPINY	31	61	45
REDFISH	40	42	38
DOGFISH SMOOTH	23	39	35
WEAKFISH, SQUETEAGUE	40	46	33
HAKE, RED	27	29	32
WHITING, KING	9	30	30
CUSK	30	36	28
HALIBUT, ATLANTIC	39	38	27
MACKEREL, ATLANTIC	23	33	27
CROAKER, ATLANTIC	17	41	25
SHRIMP,BROWN	1	15	23
TILEFISH, GOLDEN	15	12	22
BASS, STRIPED	3	15	21
WOLFFISHES	48	41	20
EEL, CONGER	17	16	18
WHELK, CHANNELED	12	14	17
FLOUNDER, SOUTHERN	2	11	17
HERRING, ATLANTIC	11	13	16
SEA ROBINS	12	18	15
JOHN DORY	12	12	14
SHRIMP (PANDALID)	9	9	12
OTHER SHELLFISH	1	11	12
WHELK, KNOBBED	8	8	11
TILEFISH, BLUELINE	5	5	11
TUNA, BLUEFIN	5	7	11
HARVEST FISH	1	11	11
SQUIDS (NS)			11
TAUTOG	14	10	10
SHARK, THRESHER	5	11	10
SPOT	5	12	10
TRIGGERFISH	5	13	10
SQUID (ILLEX)	4	2	10

Table 38. Number of LAGC-NGOM vessels with landings of corresponding species (includes fisheries with 10 or more vessels participating in 2010)

	2008	2009	2010
ANGLER	69	83	72
COD	52	62	57
FLOUNDER, AM. PLAICE	45	58	51
FLOUNDER, YELLOWTAIL	38	49	50
POLLOCK	48	55	50
FLOUNDER, WITCH	48	58	46
HADDOCK	49	56	46
FLOUNDER, WINTER	40	49	44
HAKE, WHITE	45	51	43
REDFISH	41	48	42
LOBSTER	48	47	38
SCALLOP, SEA	23	37	36
SKATES(RACK)	26	31	32
HAKE, SILVER	24	37	30
CUSK	34	38	28
DOGFISH SPINY	24	35	26
BLUEFISH	14	28	25
SHRIMP (PANDALID)	16	18	25
WOLFFISHES	45	48	23
HALIBUT, ATLANTIC	19	27	21
FLOUNDER, SUMMER	6	21	18
SEA BASS, BLACK	6	16	17
SCUP	6	16	15
SQUID (LOLIGO)	9	18	15
MACKEREL, ATLANTIC	12	20	14
BUTTERFISH	5	11	10

1.1.10 Trends in scallop landings by port

The landed value of scallops by port landing fluctuated from 1994 through 2010 for many ports. During the past five years, five ports have consistently brought in the most landed value: New Bedford, MA; Cape May, NJ; Newport News, VA; Barnegat Light/Long Beach, NJ, and Seaford, VA (Table 39). In addition to bringing in the most landed value, in 1994 scallop landings represented more than 37% of the total landed value for New Bedford, MA and Cape May, NJ, and more than 65% of the total landed value for Newport News and Barnegat Light/Long Beach, NJ. This increased in 2010 to 84% and 87% for New Bedford, MA and Cape May, NJ, respectively, and 97% and 90% for Newport News and Barnegat Light/Long Beach, NJ, respectively. Collectively, 2010 has the highest landed value of scallops since 2005. 75% of ports saw an increase in the percentage of landed scallop value to total landed value in 2010 compared to 2009 (**Error! Reference source not found.**).

The largest numbers of permitted limited access scallop vessels are currently in the ports of New Bedford, MA and Cape May, NJ, which represent 38% and 19% of the total, respectively (Table 41). Of the 349 permitted limited access vessels in 2010, 199 originate from New Bedford, MA and Cape May, NJ (Table 42). In addition to having the greatest number of permitted limited access scallop vessels, New Bedford, MA also has the greatest number of general category scallop vessels. Gloucester, MA, Boston, MA, and Point Judith, RI, also have high numbers of general category scallop vessels (Table 43). These major ports can also be described by the characteristics of the vessels that hail from each port. Table 44 shows that on average limited access vessels are larger, by length and weight, than their general category counterparts.

Table 39. Landed value of scallops (in thousands of dollars) by port of landing, FY 1994-2010

State	City/town	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MA	NEW BEDFORD	30928	36541	48436	45399	34685	70554	88403	80356	95759	228247	326456	412855	210481	210428	171652	180550	236379
NJ	CAPE MAY	9120	8853	8639	6945	5536	9721	14041	18609	20237	69998	92042	71045	21608	45485	54689	50557	63936
VA	NEWPORT NEWS	9134	11825	13457	11148	11274	15171	22958	25535	30493	80852	87736	62832	22708	33362	36307	33418	42565
NJ	BARNEGAT LIGHT/LONG BEACH	2653	2727	2942	2777	2341	3941	6719	6751	8071	22685	32402	36969	16467	16662	17275	16122	20113
VA	SEAFORD	0	0	0	5553	4543	6513	11168	10465	11841	29283	33547	27900	10865	14382	13783	13087	15915
MA	FAIRHAVEN	0	0	0	0	0	0	0	0	0	0	5084	15161	10089	8892	9166	10943	11492
NJ	POINT PLEASANT	314	528	1324	2194	1577	1854	3784	3197	3529	7180	9914	14215	7512	8725	8106	9424	10598
VA	HAMPTON	12357	7579	6346	3258	4557	5084	8289	9195	13802	37456	33758	23945	9178	15513	13386	12880	10354
CT	NEW LONDON	0	0	0	0	0	0	0	0	0	0	0	0	0	10	3456	4918	7699
CT	STONINGTON	27	19	262	227	153	10	11	40	78	824	1159	0	0	1199	5130	4121	6487
NJ	AVALON	0	0	0	0	0	0	0	0	0	0	1063	2520	1563	3468	2808	3529	5230
NJ	WILDWOOD	7	14	1	0	3	0	119	1246	2056	5183	7317	6144	2113	3690	3836	3284	5001
NJ	OTHER CAPE MAY	0	0	0	0	0	0	0	0	14	2	15	810	825	104	276	1391	4135
NY	MONTAUK	0	0	1	0	0	6	6	7	0	431	1750	3117	1846	2165	1307	1389	2541
MA	CHATHAM	0	0	0	0	0	0	64	508	104	2068	4696	5855	3123	2036	1711	782	1992
RI	POINT JUDITH	1	57	2	7	1	242	734	596	81	845	5142	11917	7348	2834	1371	765	1828
MD	OCEAN CITY	6	16	38	1	0	6	88	55	67	467	3865	9581	5637	2791	3516	2767	1229
VA	CHINCOTEAGUE	2	0	0	0	1	7	210	803	1107	5596	13924	18332	7129	1153	489	791	1177
NJ	ATLANTIC CITY	14	1	0	0	1	0	0	9	0	82	1650	3502	2037	2699	1518	1205	939
NY	HAMPTON BAYS	3	5	5	22	6	53	417	452	94	407	1638	2529	844	421	574	799	732
MA	PROVINCETOWN	39	23	91	97	114	55	119	967	501	985	2124	2624	1018	584	313	382	646
MA	BARNSTABLE	0	0	0	0	0	0	0	0	0	29	144	677	606	326	31	99	360
NJ	OTHER ATLANTIC	387	0	0	0	0	0	0	0	0	0	132	960	871	1017	539	453	347
MA	NANTUCKET	5	0	8	1	1	0	113	0	0	31	292	456	172	190	129	78	340
MA	GLOUCESTER	1	7	232	351	102	154	1008	1510	694	1017	1417	1823	778	482	330	201	338
RI	NORTH KINGSTOWN	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	308
NJ	BRIELLE	0	0	0	0	0	0	0	0	0	0	109	109	23	37	69	29	299
NY	POINT LOOKOUT	0	0	0	0	0	0	0	0	0	17	39	27	1	1075	2940	2375	198
NC	LOWLAND	0	0	0	0	0	0	0	37	12	16	20	8	3	191	0	3	118
MA	TRURO	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	104
NC	ENGELHARD	0	0	0	0	0	0	2	56	0	146	134	449	311	709	0	809	102

MA	SANDWICH	21	34	282	120	229	195	155	201	248	340	347	502	375	655	294	63	100
Total Scallop landings		74102	80226	92907	82059	67918	116586	162229	165216	193522	500736	683599	765591	361316	389722	358307	360463	454355

Table 40 - Percentage of landed value of scallops to total landed value by port of landing, FY 1994-2010

State	City/town	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MA	NEW BEDFORD	43.64%	46.13%	50.79%	48.81%	40.40%	57.56%	61.74%	56.78%	61.48%	66.39%	73.76%	78.76%	79.67%	78.27%	75.20%	80.70%	83.76%
NJ	CAPE MAY	37.02%	38.41%	40.64%	33.67%	24.96%	45.84%	61.85%	71.75%	72.61%	79.55%	81.95%	80.95%	73.60%	81.54%	80.87%	84.93%	87.06%
VA	NEWPORT NEWS	81.89%	83.92%	89.06%	87.43%	85.63%	88.92%	94.86%	96.02%	95.71%	96.14%	97.31%	96.55%	93.73%	94.12%	95.63%	96.72%	97.02%
NJ	BARNEGAT LIGHT/LONG BEACH	67.68%	58.52%	61.16%	53.92%	42.00%	36.32%	51.96%	48.43%	58.10%	66.60%	75.59%	77.35%	73.17%	70.12%	75.52%	91.25%	89.74%
VA	SEAFORD				94.92%	94.40%	98.09%	99.28%	99.70%	99.56%	99.72%	99.79%	99.69%	99.43%	99.40%	99.57%	99.75%	99.85%
MA	FAIRHAVEN									5.06%	0.00%	69.11%	89.94%	97.45%	98.71%	94.68%	97.50%	96.02%
NJ	POINT PLEASANT	2.58%	7.59%	15.80%	20.82%	13.56%	14.91%	32.01%	24.30%	19.37%	20.73%	29.60%	39.52%	35.29%	38.95%	39.53%	55.79%	54.26%
VA	HAMPTON	81.08%	76.90%	76.97%	67.85%	68.23%	74.80%	86.62%	85.07%	89.41%	88.32%	87.70%	86.40%	82.80%	90.44%	89.91%	87.04%	84.79%
CT	NEW LONDON								0.00%	0.00%	0.00%				3.03%	79.44%	98.92%	98.79%
CT	STONINGTON	8.60%	15.87%	42.46%	64.58%	47.90%	5.91%	1.97%	4.25%	13.07%	33.82%	47.38%	0.00%	0.00%	45.23%	49.55%	81.32%	84.67%
NJ	AVALON										0.00%	99.16%	99.13%	98.76%	98.52%	98.79%	99.50%	99.81%
NJ	WILDWOOD	0.17%	0.28%	0.01%	0.00%	0.09%	0.00%	2.64%	20.91%	32.31%	42.02%	60.74%	78.34%	75.44%	90.59%	96.33%	99.00%	99.28%
NJ	OTHER CAPE MAY			0.00%						100.00%								100.00%
										%	50.03%	14.57%	83.86%	91.89%	35.11%	85.85%	99.96%	%
NY	MONTAUK	0.00%	0.00%	0.02%	0.00%	0.00%	0.06%	0.07%	0.06%	0.00%	2.52%	8.08%	12.62%	14.59%	16.72%	11.13%	33.84%	48.61%
MA	CHATHAM	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.95%	7.55%	1.76%	13.89%	25.11%	26.69%	28.13%	19.90%	18.35%	51.58%	74.48%
RI	POINT JUDITH	0.01%	0.21%	0.01%	0.02%	0.00%	0.75%	2.97%	2.71%	0.38%	2.10%	10.06%	18.79%	19.95%	9.92%	4.88%	4.89%	11.06%
MD	OCEAN CITY	0.18%	0.45%	0.94%	0.02%	0.00%	0.19%	2.20%	1.32%	1.14%	4.78%	25.45%	45.86%	48.34%	27.46%	34.54%	35.33%	18.83%
VA	CHINCOTEAGUE	0.35%	0.00%	0.03%	0.00%	0.08%	0.42%	12.79%	40.85%	40.20%	56.28%	74.54%	80.30%	78.39%	31.77%	22.98%	52.41%	53.91%
NJ	ATLANTIC CITY	0.18%	0.01%	0.00%	0.00%	0.02%	0.00%	0.00%	0.04%	0.00%	0.23%	5.05%	8.90%	8.39%	9.55%	6.44%	7.76%	8.54%
NY	HAMPTON BAYS	0.23%	0.09%	0.10%	0.34%	0.09%	0.71%	4.78%	5.95%	1.30%	3.96%	15.77%	22.84%	15.28%	8.93%	14.56%	31.89%	32.23%
MA	PROVINCETOWN	2.05%	1.49%	5.10%	5.00%	4.80%	1.92%	5.33%	31.06%	20.95%	29.10%	40.18%	48.35%	48.72%	36.56%	21.98%	33.55%	44.49%
MA	BARNSTABLE							0.00%			69.62%	67.22%	80.86%	86.46%	83.21%	13.49%	98.50%	99.76%
NJ	OTHER ATLANTIC	97.80%				0.00%	0.00%			0.00%	0.00%	35.31%	70.29%	94.62%	91.23%	91.96%	98.02%	98.27%
MA	NANTUCKET	11.62%	0.87%	3.42%	0.55%	1.43%	0.00%	47.83%	0.06%	0.03%	5.26%	26.62%	29.33%	19.26%	32.04%	30.36%	49.18%	69.17%
MA	GLOUCESTER	0.00%	0.04%	1.42%	2.07%	0.45%	0.68%	4.15%	5.46%	2.61%	2.03%	2.29%	2.62%	2.06%	1.21%	0.79%	1.52%	2.36%
RI	NORTH KINGSTOWN	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.98%

MA	BEDFORD	556	571	886	798	630	662	857	1113	970	2151	2494	2790	1309	1436	1212	1220	1622
NJ	MANAHAWKIN	0	0	0	0	0	0	0	0	0	0	0	2448	1012	1008	1069	1014	1521
NC	BAYBORO	1	87	50	44	168	335	328	671	998	3547	4216	1273	1235	1643	1260	1327	1441
VA	SUFFOLK	0	0	0	0	0	0	0	0	0	0	0	0	0	1120	981	901	1383
NC	SWAN QUARTER	0	0	0	0	0	427	599	405	580	2105	3683	4765	871	658	404	660	1382
ME	BASS HARBOR	15	115	190	271	188	339	520	299	550	1839	2287	2302	1066	927	991	1148	1295
NJ	WILDWOOD	4	5	149	196	149	188	303	253	229	1298	2073	1586	376	1094	1042	1263	1272
ME	SOUTHWEST HARBOR	168	405	517	462	275	763	1086	590	529	1591	1612	3082	1222	1182	1038	778	1266
NJ	POINT PLEASANT BEACH	0	0	0	0	0	0	0	0	7	1	136	231	720	1584	2725	1632	1205
MA	HYANNIS	1642	1400	947	632	374	333	849	788	845	1811	3111	4024	2259	1968	1973	1947	1184
FL	JACKSONVILLE	203	0	0	202	262	331	544	504	373	756	2079	2451	1046	993	853	961	1096
MA	PROVINCETOWN	11	19	61	82	26	52	79	620	278	455	1236	2254	936	638	247	753	1063
NC	AURORA	348	333	433	346	425	652	201	891	779	3378	4123	3674	2017	1196	984	0	824
NC	SWANQUARTER	0	0	67	150	165	167	228	0	0	2	139	180	43	0	0	666	812
NY	NEW YORK	1165	826	954	1228	839	1109	1255	1171	1471	2757	5187	5310	2201	2034	599	991	804
FL	KEY WEST	0	0	0	1	0	0	0	0	377	1127	1309	1040	311	940	867	824	801
NC	NEWPORT	1	178	121	155	13	261	248	211	161	1138	1475	1769	902	874	956	874	731
ME	OWLS HEAD	12	205	76	0	24	9	75	516	395	419	884	1298	487	239	745	598	657
MA	GLOUCESTER	171	11	246	345	227	934	636	590	685	2252	2865	3913	1660	1389	1455	333	585
NC	ORIENTAL	385	402	96	315	525	1108	1063	1001	1200	4439	8184	9519	3714	4373	3151	1074	489
NJ	OCEAN CITY	0	0	0	0	0	0	0	0	14	16	111	164	32	57	912	281	433
MA	MANOMET	0	0	0	0	0	0	0	0	0	0	0	0	36	387	220	433	415
NY	SHINNECOCK	0	2	16	0	0	0	0	45	23	127	477	621	127	228	464	578	377
MA	HULL	0	0	0	0	0	0	0	13	15	98	124	188	152	138	278	117	374
NC	BELHAVEN	1	0	0	0	0	0	1	229	320	1109	1565	2161	714	134	240	445	370
MA	BARNSTABLE	0	0	0	0	0	0	0	0	0	1	103	571	409	506	191	235	351
MD	NANTICOKE	0	0	0	0	0	0	0	0	0	0	334	559	271	290	327	245	329
ME	STONINGTON	22	12	176	202	144	28	11	104	146	352	962	1094	325	342	589	120	324
MA	WESTPORT POINT	0	0	0	0	0	0	0	0	0	3	186	374	191	254	250	254	292
NJ	TOMS RIVER	0	0	0	0	0	0	0	152	223	470	666	24	41	501	344	259	290

The largest numbers of permitted limited access scallop vessels currently are in the ports of New Bedford, MA and Cape May, NJ, which represent 37% and 19% of the total, respectively.

Of the 348 permitted limited access vessels in 2009, 203 originate from New Bedford, MA and Cape May, NJ. Although the number of permitted limited access vessels has only increased from 308 in 1994 to a peak of 380 in 2005 and New Bedford has always had the largest number of permitted limited access vessels, the port with the next greatest number of contributors shifted from Norfolk, VA (18% in 1994 to 3% in 2009) to Cape May, NJ (9% in 1994 to 19% in 2009).

In addition to having the greatest number of permitted limited access scallop vessels, New Bedford, MA also has the greatest number of general category scallop vessels. Cape May, NJ, Barnegat Light, NJ, and Gloucester, MA also have high numbers of general category scallop vessels. Generally, ports that had a higher number of general category scallop vessels from 1994-2004, such as New Bedford, Gloucester, and Chatham, have seen a significant decrease in these vessels in recent years.

Although the largest increases in general category vessels have been from ports in NC, they have increased from 1 or no permitted general category scallop vessels to only about 6 or 7, which results in a 600-700% increase. Regardless of this increase, these ports only had a landed value for scallops of \$311,000 or less. Other ports that saw an increase of 300% in general category vessels, such as Chincoteague, VA and Barnegat Light, NJ had a landed value of \$7.3 million and \$16.9 million, respectively. Although some ports such as New Bedford and Gloucester have experienced a decline in the number of general category scallop vessels, the simultaneous increase in permitted limited access boats has aided to increase the landed value of scallops in those ports to \$202.5 million and \$812,000 respectively. As Table 44 shows, the general category fleet is not homogeneous, but varies over space and time, with some ports showing a general category fleet that mirrors limited access vessels in size (for example Atlantic City NJ), and others showing a fleet of smaller-scale vessels (such as Fairhaven, MA). Thus impacts to the general category fishery as a whole can be experienced differently in different ports.

Table 42. Permitted limited access scallop vessels, by homeport, 1994-2010.

State	Homeport	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MA	NEW BEDFORD	70	67	63	61	63	71	75	90	96	101	110	124	130	131	127	133	133
NJ	CAPE MAY	22	23	24	25	26	28	33	36	42	50	52	67	66	70	66	66	66
VA	NEWPORT NEWS	7	8	9	10	12	17	19	21	21	21	22	21	19	19	18	17	18
VA	NORFOLK	64	67	63	58	51	42	35	27	27	27	22	13	11	11	11	11	12
NC	NEW BERN	1	2	2	4	4	6	6	8	8	8	8	11	12	13	11	11	11
NJ	BARNEGAT LIGHT	5	5	6	6	6	6	9	9	8	8	9	10	10	10	9	9	10
NC	WANCHESE	4	3	2	2	2	1	4	8	7	7	6	6	8	8	7	7	8
NJ	POINT PLEASANT	3	3	2	2	2	2	3	3	3	3	3	3	3	3	5	7	8
NC	LOWLAND	6	6	7	6	6	8	7	7	7	8	8	7	7	8	7	7	7
VA	SEAFORD	1	1						2	3	4	4	5	6	5	5	6	7
MA	BOSTON	43	39	29	23	18	13	12	12	11	10	7	7	7	7	6	5	6
CT	NEW LONDON						1	1	1	1	1	1	3	5	5	5	5	5
VA	HAMPTON	13	13	10	11	8	7	6	6	6	6	7	4	7	6	7	6	5
CT	STONINGTON							1	4	6	7	7	4	4	5	4	4	4
MA	FAIRHAVEN	8	8	7	7	11	10	13	10	8	8	7	8	7	5	4	4	4
NC	BEAUFORT	3	3	1											1	2	5	4
PA	PHILADELPHIA	16	14	14	10	9	7	6	5	5	6	6	5	5	5	5	5	4
NJ	ATLANTIC CITY												1	1	2	3	3	3
NY	MONTAUK												1		2	3	3	3
RI	POINT JUDITH			1	1	1	2	2	1	1	2	1	2	3	3	3	2	3
FL	CAPE CANAVERAL	3	4	4	3	3	1	1	2	2	2	2	2	2	2	2	2	2
NC	BAYBORO	1	1	1	3	1	2	2	2	4	3	3	2	3	2	2	2	2
NC	SWAN QUARTER						1	1	2	3	3	3	3	1	1	1	2	2
VA	CARROLLTON	2	3	2	1	2	2	3	2	2	2	2	2	2	2	2	2	2
CT	ESSEX												1	1	1	1	1	1
FL	JACKSONVILLE	1			1	1	1	1	1	1		1	1	1	1	1	1	1
FL	KEY WEST			1	1					1	1	1	1	1	1	1	1	1
MA	BEDFORD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MA	HYANNIS	8	6	8	4	2	1	1	1	1	1	2	2	2	2	2	1	1
MA	MANOMET													2	1	1	1	1
MA	WESTPORT POINT							1	1	1	1	1	1	1	1	1	1	1
ME	BASS HARBOR	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
ME	OWLS HEAD	1	3	2	2	2	2	3	3	3	2	2	2	2	2	2	1	1
ME	SOUTHWEST HARBOR	4	3	4	3	2	2	2	2	2	2	1	1	1	1	1	1	1
NC	AURORA	2	2	2	2	2	1	1	2	2	3	2	2	2	1	1		1
NC	NEWPORT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NC	ORIENTAL	2	2	2	2	3	4	3	4	4	6	8	8	11	10	7	4	1
NC	SWANQUARTER	1	1	1	1	1	1	1								1	1	1
NJ	MANAHAWKIN												1	1	1	1	1	1
NJ	OCEAN CITY																1	1
NJ	POINT PLEASANT BEACH													1	1	1	1	1
NJ	WILDWOOD	3	3	2	1	1	1	1	1	1	1	1	1	2	1	1		1

VA	POQUOSON							2	2	1	1	2	2	2	2	2	1	1	1
VA	SUFFOLK																1	1	1

Table 43. Permitted general category scallop vessels, by homeport, 2005-2009. All ports that had at least 1 GC permit in 2009 are included.

State	Homeport	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MA	NEW BEDFORD	90	84	76	91	78	82	93	100	103	106	115	121	117	115	115	73	66
MA	GLOUCESTER	125	127	122	133	128	142	148	160	184	179	185	181	177	197	177	35	36
MA	BOSTON	529	540	455	401	319	273	244	219	206	186	155	133	113	107	94	37	31
RI	POINT JUDITH	42	47	43	52	52	57	56	61	61	68	72	77	81	90	82	31	30
NJ	CAPE MAY	15	15	15	22	20	28	33	33	34	40	55	71	76	83	66	29	27
NJ	BARNEGAT LIGHT	2	6	5	8	10	25	29	41	45	53	58	61	59	61	56	25	25
NJ	ATLANTIC CITY	2	2	2	1	3	6	6	10	12	12	19	29	29	24	22	14	16
NJ	POINT PLEASANT	13	11	11	11	15	16	18	24	26	26	31	36	38	37	33	20	15
MA	CHATHAM	44	40	40	44	44	49	57	63	77	81	74	70	69	72	64	13	12
MA	PROVINCETOWN	13	18	19	16	16	21	19	23	23	25	31	27	18	18	14	13	11
NY	NEW YORK	130	130	118	111	92	86	79	66	64	57	65	61	61	51	48	13	11
MD	OCEAN CITY	3	3	5	6	7	5	6	8	8	12	17	23	26	24	20	9	8
ME	PORTLAND	37	34	35	38	39	51	53	50	50	62	61	61	56	57	46	7	8
NC	NEW BERN	1		1								1	5	6	5	4	9	8
NC	WANCHESE	10	11	9	12	10	14	14	15	18	22	26	32	30	27	25	7	8
NH	SEABROOK	18	16	16	22	19	17	21	24	26	20	20	17	27	25	18	7	8
NY	MONTAUK	22	22	22	23	27	34	39	39	42	48	55	60	58	65	59	9	8
MA	SCITUATE	16	19	19	21	24	31	36	30	32	33	34	29	27	30	27	9	7
NC	SWAN QUARTER								1	3	3	5	8	10	6	3	4	7
NY	SHINNECOCK	10	9	8	8	5	10	14	15	14	15	19	17	14	14	17	8	7
ME	SOUTH BRISTOL	5	5	4	5	8	6	8	8	6	6	10	11	14	12	10	6	6
NC	BELHAVEN	3	3	3	4	4	3	4	4	6	7	10	16	13	11	8	6	6
NH	PORTSMOUTH	13	13	20	25	26	28	35	35	37	35	49	47	47	46	29	6	6
NJ	BELFORD	14	15	15	17	17	21	22	22	22	24	27	26	26	24	24	6	6
PA	PHILADELPHIA	43	42	34	32	31	33	28	32	32	28	25	19	18	16	15	6	6
NC	BEAUFORT	3	1	4	4	5	6	11	11	11	14	16	17	15	13	13	7	5
NH	HAMPTON	16	17	14	14	13	14	13	18	20	18	23	22	17	18	16	5	5
NJ	WEST CREEK		1	1	1	1								1	1			5
MD	TILGHMAN											5	11	10	8	6	4	4
NC	ENGELHARD				1	2	3	4	5	4	5	9	13	10	9	7	5	4
NH	RYE	6	7	9	9	9	9	8	9	12	15	19	20	20	23	21	5	4
MA	EASTHAM	2	2	2	1	2	1	2	2	4	3	3	3	2	1			3
MA	MARSHFIELD	7	7	4	13	13	16	19	17	15	17	19	19	18	17	16	2	3
MA	NEWBURYPORT	12	10	14	12	13	13	17	17	22	23	22	21	18	15	14	3	3
MA	ROCKPORT	10	11	13	15	16	17	18	21	29	27	24	21	17	18	15	3	3
MA	SANDWICH	12	13	7	6	11	16	16	15	19	19	22	19	19	16	12	3	3
MA	WOODS HOLE	2	3	3	3	3	3	7	8	8	9	9	5	7	6	7	3	3

NJ	POINT PLEASANT BEACH			1	1	1	1	1	2	3	3	4	4	5	4	5	3	3
NJ	WILDWOOD	8	8	7	8	8	6	9	11	10	9	9	7	8	8	7	4	3
NY	FREEPORT	2	2	1	4	4	4	6	5	7	8	10	12	11	9	7	3	3
NY	GREENPORT	2	4	4	6	7	6	7	6	6	7	7	7	5	5	6	3	3
NY	HAMPTON BAYS	6	7	7	8	9	8	9	9	8	9	6	9	11	10	9	2	3
RI	WAKEFIELD	6	8	7	8	9	9	8	10	9	9	8	7	7	7	7	4	3
CT	NEW LONDON	2	2	3	5	8	7	6	9	9	7	10	9	9	9	8	2	2
CT	STONINGTON	3	3	3	3	4	6	6	7	8	7	11	11	11	10	7	3	2
DE	WILMINGTON	5	5	5	4	4	4	3	3	5	5	5	6	6	4	3	2	2
MA	BRANT ROCK	3	3	4	6	6	9	13	10	10	12	13	12	10	9	8	2	2
MA	FAIRHAVEN	7	8	5	12	16	16	19	19	22	25	25	27	26	22	16	2	2
MA	HARWICH	5	5	5	4	5	9	10	11	15	12	15	16	19	15	11	1	2
MA	MANCHESTER	5	8	5	5	5	5	5	4	5	4	8	6	5	6	6	2	2
MA	SALISBURY	6	8	8	5	5	6	7	9	12	13	11	10	9	11	8	2	2
MA	WESTPORT	10	15	9	7	14	12	19	18	18	17	18	17	16	14	11	2	2
ME	CUNDYS HARBOR	6	7	6	8	6	9	9	9	10	10	9	12	15	15	12	1	2
ME	FRIENDSHIP		1	2	1	3	2	2	5	7	6	8	13	14	11	10	2	2
ME	LONG ISLAND		1	1	1	1	3	3	3	3	3	6	4	2	3	6	2	2
ME	NORTHEAST HARBOR			3	1	1	1		1	3	2	4	3	3	3	4	3	2
ME	PORT CLYDE	7	8	10	9	11	11	12	13	11	13	15	14	10	5	5	2	2
ME	SACO	4	5	4	3	4	5	8	6	8	7	7	8	9	5	3	2	2
ME	STEUBEN	6	7	10	8	8	8	9	10	9	10	8	7	7	8	4	1	2
ME	YARMOUTH	2	2	1	1	2	2	3	2	2	2	2	3	2	2	1	2	2
NC	SCRANTON										1	1	2	1	1	1	1	2
NJ	LITTLE EGG HARBOR																	2
NJ	PORT NORRIS								2	3	8	15	15	11	11	11	1	2
RI	NARRAGANSETT	2	4	3	1	4	7	10	10	10	10	9	9	5	6	4	2	2
VA	GLOUCESTER									1	1	2	2			1	1	2
VA	NORFOLK	36	34	26	29	20	19	13	18	19	18	17	17	14	11	7	2	2
CT	OAKDALE															1	1	1
DE	LEWES	1	1	1	1					1	2	5	7	7	7	5	1	1
FL	CHOKOLOSKEE									1	1	1	1	1	1	1	1	1
GA	TOWNSEND												1	1	2	2	1	1
MA	BARNSTABLE	3	3	3	5	6	7	7	8	7	6	6	7	6	7	6	1	1
MA	EDGARTOWN	2	4	3	5	5	5	4	4	6	6	5	5	4	3	3	1	1
MA	ESSEX	1							1	1	1	1	1				1	1
MA	GREEN HARBOR	8	7	7	6	11	11	13	13	11	13	14	15	16	17	16	2	1
MA	HULL	2	2	5	6	8	12	12	12	13	9	9	8	9	7	7	1	1
MA	MARBLEHEAD	7	6	5	6	4	6	10	10	11	12	11	12	12	12	11	1	1
MA	MENEMSHA	2	2	2	3	4	4	4	5	6	6	8	7	10	8	7	1	1
MA	NANTUCKET	1	2	2	4	4	4	6	7	9	10	10	10	10	6	4	1	1
MA	NEW BEFORD																	1
MA	PLYMOUTH	10	13	14	20	25	22	21	25	25	28	36	29	25	23	19	1	1

MA	SALEM	3	3	2	3	1	1	1	3	3	6	4	4	5	6	5	1	1
MA	SWAMPSCOTT	2	2	2	2	2	2	3	3	4	5	2	4	5	4	3	1	1
MA	WELLFLEET	5	5	4	7	7	7	4	8	9	7	11	10	7	5	4	2	1
MD	NANTICOKE											1	1	2	2	2	1	1
ME	BASS HARBOR	1	3	2		1	1				3	2	1		1	2	2	1
ME	BUCKS HARBOR	13	16	13	11	11	11	11	12	14	15	16	15	10	14	12	1	1
ME	CAPE PORPOISE	4	3	3	4	4	7	6	6	7	6	9	8	9	10	9	1	1
ME	CHEBEAGUE ISLAND		2	2	3			1	1	1	1	1	1	2		1	1	1
ME	CUSHING	1	2	3			1	1		3	2	3	5	7	4	6	1	1
ME	CUTLER	8	7	4	3	2	3	3	8	7	5	6	6	5	7	4	2	1
ME	ELIOT				2	1	1	1					1	3	4	4	1	1
ME	HARRINGTON	2	4	3	2	1	3	3	4	4	3	2	4	2	1	1	1	1
ME	JONESPORT	9	15	17	15	13	17	24	27	27	28	28	29	31	27	18	1	1
ME	KENNEBUNKPORT	4	4	1	2	1	3	3	4	3	2	2	4	2	2	3	1	1
ME	KITTERY	4	5	2	6	9	11	11	10	10	11	11	11	10	11	7	1	1
ME	MOUNT DESERT			1	2	2	1	1	1									1
ME	OWLS HEAD	2	2	2	1	2	2	4	8	7	12	11	8	10	9	9	1	1
ME	SEBASCO ESTATES	8	9	8	7	4	6	5	3	3	3	3	4	4	4	4	1	1
ME	SOUTH THOMASTON						1	2	2	1	3	4	4	2	2	2	1	1
ME	SPRUCE HEAD	9	9	7	5	7	7	7	8	8	8	9	9	8	7	6	1	1
ME	STONINGTON	9	8	21	10	13	16	19	16	18	18	25	32	24	16	13	2	1
ME	TRESCOTT					1	1	1	1	1	1	1	1	1	1	1	1	1
ME	WEST ROCKPORT																	1
ME	WINTER HARBOR	4	7	6	4	5	6	9	9	12	12	17	17	14	14	13	1	1
ME	YORK	2	4	3	4	2	3	4	3	4	2	2	3	4	4	1	1	1
ME	YORK HARBOR	2	1		1	3	4	3	3	2	2	3	3	2	2	1	1	1
NC	BATH						1	1	1	1	1	4	3	1	1	2	1	1
NC	CHOCOWINITY																	1
NC	ENGLEHARD										1	1	1	1				1
NC	HOBUCKEN								1		3	1	1	1	1	1		1
NC	KITTY HAWK					1		1	1	1							1	1
NC	MANNS HARBOR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NC	MARSHALLBERG	1	1									1	1	1	3	3	1	1
NC	MOREHEAD	1	1		1	1			1	1	1	1	1	1	1	1	1	1
NC	ORIENTAL					2	3	3	2	4	4	10	9	11	9	7	1	1
NC	SHALLOTTE										1	1	1	2	2	2	2	1
NC	SWAN QUARTER						1	1	1	1	1	1	1	1	1	1	1	1
NC	SWANQUARTER	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NE	ROCKLAND										1	1	1	1	1	1	1	1
NH	HAMPTON FALLS		1	2	3	4	4	3	4	3	3	2	2	2	2	2	1	1
NJ	BARNEGATE LIGHT		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NJ	BELMAR	1	1	3	1	3	4	3	4	3	4	5	6	5	5	6	1	1
NJ	CAPE MAY COURT HOUSE									1	1	1	1	1	1	1	1	1

NJ	MANAHAWKIN									2	1	1	1					1
NJ	MILLVILLE				1						2	1	3	3	4	3	2	1
NJ	NEPTUNE	2	2	2	2	1	1	1	1	1	2	2	2	3	3	3	1	1
NJ	TOMS RIVER	1	2					1	1	1	1	1		1	1	1	1	1
NY	AQUEBOGUE								1	1		1	1	1	1		1	1
NY	ISLIP	1	1	1	1	1	1	1	2	2	2	5	4	3	3	3	1	1
NY	POINT LOOKOUT	4	4	2	3	4	3	2	3	2	3	4	4	4	3	2	1	1
NY	SOUTHAMPTON					1	1	1	1	1	1	1	2	1	1	1	1	1
PA	PHILIDELPHIA	1								1	1	1	1	1	1	1	1	1
RI	GALILEE	3	3	2	2	4	4	5	6	5	2	3	4	4	4	3	1	1
RI	NARRAGNASETT							1	1	1	1	1	1	1	1	1	1	1
RI	NEWPORT	5	5	5	7	6	9	17	24	25	25	29	31	29	27	23	5	1
VA	BEAUFORT							1	1	1	1	1	1	1	1	1	1	1
VA	NEWPORT NEWS			1	1	3	1	1		1	1	2	8	5	6	5	1	1
VA	TANGIER ISLAND						1	1	1	1	1	1	1	1	1	1	1	1