

**Paul Diodati**  
Director, Massachusetts Division of Marine Fisheries  
and  
Co-Chair, Massachusetts Marine Fisheries Institute  
Testimony on  
**“Changes in the Northeast Multispecies Fishery as a  
Result of Implementing a New Catch Share System”**  
U.S. Senate Committee on Commerce, Science, and  
Transportation field hearing  
October 3, 2011  
Boston, Massachusetts

Good morning Chairman and other members of the Committee. My name is Paul Diodati, and I want to thank you all very much for the opportunity to share a few thoughts about how catch share management, in general, and sectors, in particular, have affected the health of the Massachusetts groundfish fishery.

I am the Director of the Massachusetts Division of Marine Fisheries (DMF), and Co-Chair of the Massachusetts Marine Fisheries Institute (MFI). I am the Commonwealth’s Administrative Member to the New England Fisheries Management Council and the Atlantic States Marine Fisheries Commission. For over thirty years I have trained and worked in fisheries science and management at the regional and national level.

With the majority of sectors operating out of Massachusetts ports, the Commonwealth has a strong interest in promoting the effective transition to catch shares in New England, while minimizing any potential adverse social-economic impacts to fishing communities and businesses. We understand the difficulty our industry is having adapting to the cultural change that accompanies sector management. At the same time, we can’t forget the severe hardships endured by our fishermen under the deeply flawed Days-at-Sea (DAS) system that squeezed the commercial fishing fleet and failed to protect and revive the fish stocks on which the industry depends. The Patrick-Murray Administration has voiced strong concerns

with the sector program's implementation and urges applying the highest annual catch levels within NOAA's approved limits and use of cooperative research to improve stock assessment.

The Division of Marine Fisheries conducted a case study of Northeast Fishery Sector 10, a day-boat sector operating out of the Plymouth-Scituate area, in order to identify major impacts posed by Amendment 16 (catch shares). Sector 10 was chosen for this work because of its proximity to heavily regulated fishing areas and its make-up, especially of smaller vessels, that may have caused it disproportionate impacts by Amendment 16. I wish to thank the Sector 10 members and manager for their willingness to share confidential information with the Division to better enlighten us all about what is occurring within sectors. I will share some preliminary results of that work today, but our complete report about Sector 10, and a similar analysis of other Massachusetts sectors that DMF is preparing cooperatively with NOAA Fisheries (NOAA), will not be completed and made fully available until later in October.

Amendment 16 initiated this catch share program with hard catch limits (quotas) in place of days-at-sea restrictions to meet the 2006 Magnuson-Stevens Act (MSA) mandate to implement Annual Catch Limits (ACLs) and Accountability Measures (AMs), and to achieve economic efficiency. It is our conclusion from our case study that in Sector 10, the catch share system has caused a significant consolidation of revenues among fewer vessels, and has caused severe economic strain among the majority of fishermen, most of whom are small vessel owners.

Our review does not consider the merits of an input vs. output control program to manage fisheries or if quota allocation was done in a rational way. Comparing fisheries performance between 2009 and 2010 requires much more economic analysis and social research to accurately explain changes occurring in our fishing fleet, fishing communities, and seafood markets and to correctly identify the responsible causative factors.

To put this daunting task in context consider some of the variables in play in 2010:

- Annual Catch Levels (ACLs) were reduced 30 percent from 2009;
- Total Allowable Catches (TACs) were enforced;
- Assumed dead discards were newly applied to reduce ACLs;
- Nominal daily trip limits were abandoned;

- Closed areas were reopened;
- Management and monitoring costs were shared by industry;
- Stock areas were off limits to fishermen unless their sector had sufficient amount of quota for that stock area; and
- An unrestricted market for sector Annual Catch Entitlement (ACE) leasing was put in place with no central system to track the exchange of quota between sectors available to fisheries managers.

NOAA is working to generate more information about fishery performance and the Division will continue cooperative efforts to assist in these analyses. The Sector 10 case study on which I will focus only considers Amendment 16's economic outcome.

Sector 10 began the fishing year with a 20 percent lower landing allocation compared to 2009 landings; reductions for some individual fishermen were even higher. Actual 2010 landings fell even lower – 60 percent below the previous year's level. Trading and leasing could not mitigate the general insecurity with new sector business practices. For example, there were unknowns about how discard mortality would affect an individual's share of quota, or Percent Sector Contribution (PSC); and concerns about lack of certain species in one's quota portfolio.

Sector 10's reduction in groundfish landings contributed to a 53 percent reduction (\$1.5 million) in its groundfish revenue and 23 percent reduction (\$1.0 million) in its overall revenue. Reduced overall revenue occurred despite a significant shift into other non-groundfish fisheries (such as dogfish, lobster, and squid) by some of its members and higher average prices paid for all fish than in prior years. A major point being, large amounts of valuable fish, including fish that were leased in by Sector 10, were left uncaught. Discussions with non-sector 10 fishermen suggest other Massachusetts sectors also ended the 2010 fishing year with uncaught ACE; but we cannot identify another sector that exceeded Sector 10 in the amount of relative uncaught ACE (50 percent).

We conducted an analysis to determine break-even points, where total revenues equal total costs, which shows an increase in the number of Sector 10 permits that did not break-even. In 2010 nearly 50 percent of active permits fell below the break-even point. We are working to complete a break-even analysis of the entire fleet, and expect to be able to share those results later this month. We also found a significant number of

fishing businesses were operating below break-even points in years prior to 2010. Many fishermen are trying to survive by drawing on personal income or extended credit, shifting more fishing costs to crew or shrinking crew size, or postponing vessel maintenance.

A recent performance report of the 2010 groundfish fishery issued by NOAA's Northeast Fisheries Science Center demonstrates that fewer boats, about one-third fewer each year since 2007, have been operating in the groundfish fishery. The federal report also illustrates an increasing concentration of groundfish revenues among the top earning vessels, vessels greater than 75 feet. Only 20 percent of vessels accounted for about 80 percent of gross groundfish revenues. This sign of consolidation is confirmed by an earlier report prepared by the Massachusetts Marine Fisheries Institute (MFI), which Governor Patrick forwarded to Secretary Locke in November 2010. The MFI reported major shifts in the distribution of quota (income) as noted by as much as two-thirds of fishing permits that were allocated 50 to 60 percent less than their 2007-2009 average annual harvest levels.

The transition to catch shares under Amendment 16 has been difficult in terms of the program's allocation determinations and socioeconomic impacts, and many of the challenges cannot be measured in a single fisheries science report. Looking to the future, I'd like to offer possible solutions to mitigate some of the impacts we identified.

Solution 1 – There is need for liquidity and certainty in the lease marketplace for ACE and a need for fishermen to have a better understanding of how to succeed under sector management. A central database that tracks all ACE trading activity and provides real-time accounting of ACE balances would assist in exchanging quota between sectors and ultimately improve business planning for individual fishermen. Additionally, we believe it would be of benefit for NOAA to implement training programs for sector fishermen to assist in building and managing their quota portfolios.

Solution 2 – While sector management created economic efficiencies for some members of the fishery, these opportunities were not widespread and generally not enough to counter high costs of monitoring and operating fishing businesses. NOAA should work to reduce at-sea

monitoring costs while continuing to fund sector monitoring and administration. We believe such assistance will help push the balance of break-even points towards the black for more fishermen as they adjust to and learn how to prepare and implement annual sector business plans.

Solution 3 – Redistribution and concentration of revenue and less access to capital leaves smaller-scale vessels disproportionately impacted by sector management. Government assisted loan programs for quota leasing should be established throughout the Northeast to aid small-scale, owner-operated fishing businesses for those who lack sufficient valuation to obtain loans from conventional finance institutions. Additionally, more work needs to be done to allow a higher percentage of unused quota to reach the marketplace.

Finally, in context of a new management system that presents a steep learning curve for both fishermen and managers, we would ask you to urge the Secretary of Commerce to instruct his staff to discourage adding large uncertainty buffers that may unnecessarily lower annual catch levels and to define overfishing limits from direct estimates of  $F_{MSY}$  and  $B_{MSY}$  when they are available and defensible. Maintaining ACLs at the highest scientifically supported level during the next few years will contribute towards economic viability of more segments of the fishery, particularly the small-boat segment. Increased amounts of ACL will become more valuable as fishermen adjust to new sector business practices and begin to make full use of their annual quota.

The Commonwealth is committed to working cooperatively with the federal agencies, fishermen, our Congressional delegation, and local officials to meet these challenges. I hope my testimony will assist the Committee formulate remedies to improve the operation of our groundfish fishery. I'd be glad to answer any questions.