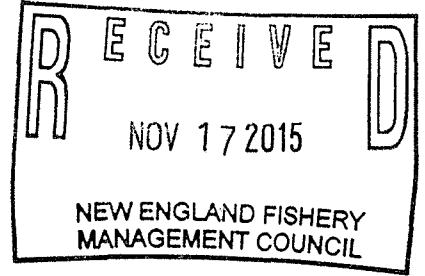


#12

CORRESPONDENCE

Hank Soule
88 Rocky Hill
Somersworth NH 03878



Frank Blount, Chair
NEFMS Groundfish Committee
50 Water St. Mill 2
Newburyport, MA 01950

Dear Frank,

I'm writing at the last minute which I hate to do. My objective is to find a solution to unaffordable ASM coverage levels whilst maintaining good data quality. My concern is (a) that no timely solution is forthcoming, and (b) we have heard the redfish CV, of all stocks, requires ASM coverage of around 40% next year. I present two ideas which, if your committee concurs, would be moved forward for analysis.

Based on Standard Deviation of CV Values

At our recent Groundfish AP meeting, we noted that CVs on most stocks were well below 30, and remarked how unfortunate it was that one or two stocks with unusually high CVs drove ASM coverage rates far above what they otherwise would need to be. Appended are five years of CV/coverage figures that show the issue.

The AP wanted to get at a way to identify the outliers that drive ASM coverage unnecessarily high, so I calculated the standard deviation (SD) of all stocks' Realized CVs (there are twenty; I exclude the eastern/western SDs for Georges cod and haddock). Each year there are one or more stocks whose CVs exceed the SD by a factor of three or more (from what I understand, and I'm no statistician, values exceeding 3X SD are often considered to be outliers).

Those values are highlighted yellow in the tables (I've also highlighted the outlier coverage rates). Some values even exceed 4X SD, which are highlighted red.

Request: Will the NEFMC examine the feasibility of excluding the outlier stocks from the list which sets overall ASM rates, based on standard deviation from the average?

Based on Mitigating Risk of Exceeding Assumed Discards

The purpose of using CVs to set ASM coverage rates is to provide the NEFMC assurance that sector discards are being accurately counted and thus sectors remain within their ACEs. If a stock's CV exceeds 30, the risk of actual discards exceeding calculated discards rises.

This risk is quantifiable in terms of pounds discarded, meaning: It is possible to calculate the upper-bound discard volume for a CV of 50 as opposed to 30.

J.C.J.P - 11/19/15

Therefore sectors might be willing to give up pounds of fish, as additional assumed discards, in order to reduce out-of-pocket expenses for ASM coverage. For example, assume next year the redfish CV requires an ASM coverage rate of 40%. If the ASM rate was kept at 20%, that might introduce much uncertainty in redfish discard estimates. But the stock is so healthy that even a fivefold increase in discards (either actual or assumed) would have no negative impact on either sectors or the stock.

One could perform this test for the next highest stock on the list. After redfish, we've heard that next year the GOM winter flounder CV will require ASM coverage of about 20%. Sectors might happily accept a fivefold increase in assumed discards o that stock if that mean the resulting ASM coverage rate was dropped to 10%. Of course, the redfish rate would then have to be recalculated. But you get the drift.

The flip side is that as ASM rates decrease, you run the risk of higher assumed discards on more in-demand stocks. But an analysis would tease information this out.

Request: Will the NEFMC conduct this analysis based on FY2015's expected ACLs and the CV rates to be used? (Note: I've been advised this concept may not be frameworkable)

Thank you for the consideration,



Hank Soule

Appendix: CVs and ASM Coverage Required, FYs 2010-2014

FY 2014	FY14 Realized CV	FY14 CV30 Pct Coverage Required
REDFISH		
WINTER GOM	29.06	25.99
YT SNE	23.08	13.93
YT GB	21.14	11.59
WINTER GB	20.84	11.27
WINTER SNE	16.66	10.84
OCEAN POUT	16.50	7.44
WHITE HAKE	15.29	7.51
YT GOM	14.10	7.35
COD GB	13.94	6.41
WINDOWPANE S	12.75	5.31
HADDOCK GOM	12.03	5.76
COD GOM	11.16	5.02
POLLOCK	9.72	3.31
WOLFFISH	9.72	3.16
WITCH	8.95	2.54
HADDOCK GB	8.55	2.71
WINDOWPANE N	8.26	2.04
PLAICE	7.33	1.75
HALIBUT	6.97	1.68
Mean (average)	15.38	8.62
Median	13.35	6.09
Standard deviation (population)	8.28	8.53

FY 2013	FY13 Realized CV	FY13 CV30 Pct Coverage Required
YT SNE		
YT GB	24.84	12.42
WINTER SNE	23.00	10.63
WINTER GB	21.16	9.87
REDFISH	21.05	11.77
WINDOWPANE S	16.69	6.45
WINTER GOM	15.10	6.40
COD GB	14.56	5.19
HADDOCK GOM	12.98	4.84
HADDOCK GB	11.94	3.41
WHITE HAKE	11.81	3.59
OCEAN POUT	11.57	2.80
YT GOM	9.55	2.24
WOLFFISH	9.32	2.43
WINDOWPANE N	7.98	1.74
HALIBUT	7.68	1.43
POLLOCK	7.64	1.41
WITCH	7.41	1.35
COD GOM	6.51	1.05
PLAICE	6.07	1.11
Mean (average)	13.91	5.54
Median	11.88	3.50
Standard deviation (population)	6.88	5.01

FY 2012	FY12 Realized CV	FY13 CV30 Pct Coverage Required
HADDOCK GB		
WINTER GB		8.87
WINTER SNE	15.97	5.11
YT GB	15.44	7.24
REDFISH	13.79	4.87
YT SNE	12.95	4.44
HADDOCK GOM	12.90	4.63
WHITE HAKE	12.26	4.60
OCEAN POUT	11.70	3.55
WINDOWPANE S	11.01	3.21
COD GB	10.70	2.99
WINDOWPANE N	10.50	3.03
COD GOM	9.73	2.95
WINTER GOM	8.96	2.54
WITCH	8.87	2.05
WOLFFISH	8.34	1.93
YT GOM	7.80	1.81
POLLOCK	7.71	1.64
HALIBUT	6.66	1.22
PLAICE	5.52	0.82
Mean (average)	11.68	3.94
Median	10.86	3.12
Standard deviation (population)	4.22	2.57

FY 2011	FY11 Realized CV	FY13 CV30 Pct Coverage Required
WINTER GB		
WINTER SNE	12.85	7.74
HADDOCK GB	10.36	3.69
YT SNE	10.22	4.55
YT GB	9.39	4.15
HADDOCK GOM	9.38	3.36
WINTER GOM	9.11	3.68
OCEAN POUT	9.04	3.15
WINDOWPANE N	8.98	3.11
WINDOWPANE S	8.81	3.50
REDFISH	8.39	3.05
COD GB	8.22	3.23
WHITE HAKE	7.76	2.36
YT GOM	7.00	1.90
HALIBUT	6.95	1.93
WOLFFISH	6.91	1.88
POLLOCK	6.90	2.07
WITCH	5.11	1.06
COD GOM	4.74	1.04
PLAICE	4.36	0.76
Mean (average)	9.11	3.90
Median	8.60	3.13
Standard deviation (population)	4.70	4.35

FY 2010	FY10 Realized CV	FY13 CV30 Pct Coverage Required
YT SNE		8.77
WINTER GB		
WINDOWPANE S		8.08
WINTER SNE	11.51	6.15
WINTER GOM	11.13	4.29
REDFISH	10.61	7.20
HADDOCK GOM	10.56	6.19
WINDOWPANE N	9.94	5.56
HADDOCK GB	9.69	4.58
OCEAN POUT	9.40	4.61
YT GB	9.21	4.15
YT GOM	9.12	4.75
WHITE HAKE	8.66	4.19
POLLOCK	8.01	3.19
WOLFFISH	6.66	2.18
HALIBUT	6.34	2.01
COD GB	5.76	1.60
WITCH	5.61	1.70
COD GOM	4.96	1.23
PLAICE	4.74	1.33
Mean (average)	9.27	4.61
Median	9.31	4.44
Standard deviation (population)	3.01	2.56

3



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

NOV 16 2015

Douglas E. Grout (NH), Chair

James J. Gilmore, Jr., (NY), Vice-Chair

Robert E. Beal, Executive Director

NEW ENGLAND FISHERY
MANAGEMENT COUNCIL

Vision: Sustainably Managing Atlantic Coastal Fisheries

November 16, 2015

John Bullard
NOAA Fisheries Service
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Tom Nies
New England Fisheries Management Council
50 Water Street
Newburyport, Massachusetts 01950

John Tom
Dear ~~Mr. Bullard~~ and ~~Mr. Nies~~,

I am writing on behalf of the Atlantic States Marine Fisheries Commission's Winter Flounder Management Board (Board). The Board is concerned about the status of winter flounder stocks, particularly the critical condition of the Southern New England/Mid-Atlantic (SNE/MA) population. Information from the 2015 stock assessment indicates the stock is overfished and biomass estimates are at 23% of the target. While there have been some modest increases over the last decade, the stock has remained at approximately a quarter of the target since the early 2000s. Since 1981 recruitment has been declining, 2013 is the lowest in the time series which is approximately 4% of the estimated recruitment in 1981 (the highest in the time series). While the 2014 recruitment estimate increased slightly, the overall stock productivity continues to decline.

The 2015 assessment biomass estimates and the states' fishery independent indices show a downward trend in the most recent years, reversing what appeared to be some modest recovery during the four-year harvest moratorium period in federal waters. Stock projections indicate the stock can not rebuild by 2023 with fishing mortality at zero (50% probability). Based on the updated assessment and state survey's, the Board urges the New England Fishery Management Council (NEFMC) and NOAA Fisheries to implement increased conservation measures, including reductions in the ABC and set possession limits to unavoidable bycatch levels in federal waters. The Commission has maintained a very restrictive commercial bycatch limit of 50 pounds or 38 fish per trip and a recreation bag limit of two fish in state waters.

The Board is also seeking ways to collaborate more closely with the NEFMC and NOAA Fisheries on management of winter flounder. The Commission is willing to send representatives to the NEFMC meetings or invite Council representative to our meetings to facilitate better coordination. Thank you for your consideration and please contact me with any questions.

Sincerely,

Robert E. Beal

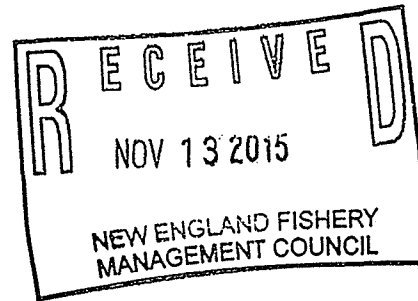
cc: ASMFC Winter Flounder Board

MAINE • NEW HAMPSHIRE • MASSACHUSETTS • RHODE ISLAND • CONNECTICUT • NEW YORK • NEW JERSEY • DELAWARE
PENNSYLVANIA • MARYLAND • VIRGINIA • NORTH CAROLINA • SOUTH CAROLINA • GEORGIA • FLORIDA

jc, jp - 11/19/15

11/13/2015

Michael P Leary
3 Orchard Drive
Hampton Falls, NH 03844



Tom Nies
Executive Director
New England Fishery Management Council
50 Water Street, Mill 2
Newburyport, MA 01950

RE: Regulated mesh measurement

Dear Tom.

I would like the council to revisit the regulated mesh measuring regulations to allow for a tolerance for the shrinkage of the mesh during use. Currently we have a 6.5 inch, 6 inch and 5.5 inch regulated mesh regulations here in the northeast multispecies fishery. The mesh manufacturers have been trying to calculate the rate of shrinkage and now provide cod ends with an overage of about an eighth of an inch, so a new cod end measures $6 \frac{5}{8}$ of an inch when we purchase them. The $\frac{1}{8}$ inch overage hopefully will shrink to 6.5 inch. Depending on the bottom sediment where we tow the nets i.e. sand, silt, mud, gravel the nets shrink and different rates.

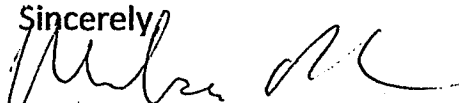
In the past 12 months I have been boarded four times and had my nets measured differently each time. The current method of measuring the twine is very subjective. To take an average of 20 meshes without a tolerance allowance puts us at a disadvantage. One boarding in August the Coast Guard measured the cod end and found that all the meshes were undersized. The observer we had onboard measured the same net and found the meshes slightly oversized. A new cod end for my vessel cost between 900 dollars and 1200 dollars depending on

jc/jp - 10/16/15

the diameter of the twine. I use to wear out a cod end before I had to change it and now I have purchased four cod ends in the past 12 months.

A quarter inch tolerance will help to solve this problem. We are currently using the largest cod ends in any regulated fishery.

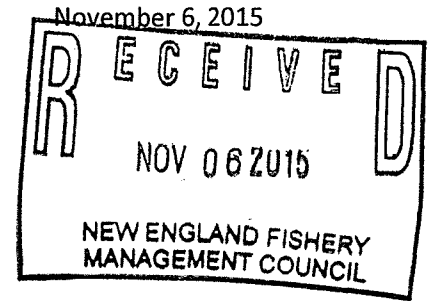
Sincerely,

A handwritten signature in black ink, appearing to read "Michael P. Leary". The signature is fluid and cursive, with a large initial "M" and a long, sweeping tail.

Michael P Leary

F/V RyanWilliam

Tom Nies, Executive Director
New England Fishery Management Council
50 Water Street
Newburyport, Massachusetts 01950



Dear Mr. Nies,

Thank you for the opportunity to comment on the development of the Framework 55 alternative to remove at-sea monitoring (ASM) requirements for extra-large mesh gillnet trips targeting monkfish, skates, and dogfish.

The majority of Cape Cod's gillnet fleet target skates and dogfish exclusively throughout the year. Skates are caught using 11- or 12-inch tie-down gear soaked overnight, while dogfish are caught by "stab setting"-6.5-inch gear is set for a short period of time in a location known to contain dogfish. The dogfish gear is hauled a short time later and it goes home with the boat on each trip. The bycatch in these fisheries is minimal, so much so that NMFS exempted dogfish from multispecies regulations back in 2013.

We appreciate that the Council has tasked the PDT with developing ASM solutions for extra-large mesh gillnet vessels. As the PDT explores different strategies to move forward, we encourage them to consider options that will allow us participate in both skate and dogfish fisheries on a single trip without triggering ASM requirements.

Current work being done in Framework 9 to the Monkfish FMP may be useful in informing these efforts. Fishermen in the Southern Zone identified a disconnect in existing regulations; they had been granted two separate, but spatially overlapping, exemptions to target monkfish and dogfish. The Council is now in the process of modifying these exemptions to allow the fleet to utilize them simultaneously.

Building a solution that works is critical to the future viability of our fleet. Therefore, we are deeply committed to participating in the process to help build a positive outcome. Please consider us a resource and available to provide recommendations and feedback.

Thank you for your attention to this important issue.

Sincerely,

Jan Margeson
F/V Great Pumpkin

Jared Bennett
F/V Synergistic

Mike Woods
F/V Jakob & Megan

Jim Nash
F/V Ann Marie

Nick Muto
F/V Dawn T

Matt Linnell
F/V Lori B

John Our
F/V Miss Fitz

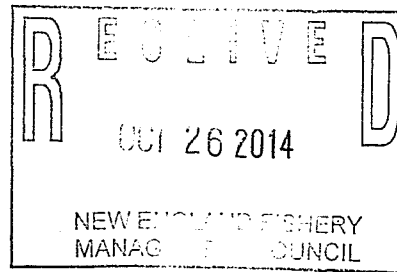
Greg Connors
F/V Constance Sea

Tim Linnell
F/V Perry's Pride II

jc/jp - 11/12/15

3

To: Chairman Terry Stockwell
New England Fishery Management Council
50 Water Street, Mill #2
Newburyport, MA 01950



RE: Gulf of Maine Cod

Dear Sir,

The present bubble in the Gulf of Maine lobster fishery is pretty obvious. I see whole Ports that used to be ground fish vessels that are now all inshore and offshore lobster vessels. Is this a man made bubble and at the expense of what?

In 2004, a report to the council I was present for stated 70,000 metric tons of Herring was put back into the ocean as lobster bait that year. That number seemed extremely large and I thought that sounded more like an aquaculture program than a fishing industry. I don't know what the number is now but I doubt it has decreased seeing the growth in the lobster industry. Common sense tells us taking that much of a food source out of the Gulf of Maine ecosystem has to have some consequences. Especially in the inshore area. The scientists and stock experts probably disagree but it is worth taking the time to understand what perspective they are saying that from. They might not fully know the relationships between species in the ecosystem or they may not be able to quantify those relationships so they have to disregard them.

I know you have fished in the Gulf of Maine for cod because I towed you in one day from Jeffreys Ledge. The cod you caught that day, which you gave to me for towing you in, I am sure they were full of herring or herring spawn when they came over the rail. Anyone who has fished for cod in the Gulf of Maine knows that the primary food source inshore is herring and shrimp excluding of course Stellwagon Bank and Cape Cod Bay which have the sand eels.

Keeping the inshore Herring stock fished down has to be at minimum a headwind for the Gulf of Maine Cod stock. Taking that much of a food source and giving it to benefit one species, lobster, definitely is not the historic norm and has to have some effect on the other species that rely on that food source. Is the shrimp stock taking more pressure as a food source now as a result of that? Is there any correlation between the areas of long term herring removal and cod stock not returning to the that area?

Large removals of Herring inshore may not hurt the stocks sustainability as a whole but what effect does it have on the species that feed on it in those areas?

I have heard the theory that the warming of the ocean from climate change may be responsible for the lack of cod. Climate change is a very slow and gradual thing so you would think the effects of it on fish would be very slow and gradual and you would also think it would effect other similar species equally.

Sincerely,

Anthony "Bud" Fernandes
Retired Commercial Fisherman
NEFMC 1998 to 2004
PO box 510504
Key Colony Beach, FL 33051

cbk, jc, rf - 10/27/15



New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 565 0592 | FAX 978 565 3116
C.M. "Rip" Cunningham, Jr., *Chairman* | Paul J. Howard, *Executive Director*

October 30, 2015

Mr. John Bullard
Northeast Regional Administrator
NMFS/NOAA Fisheries
55 Great Republic Drive
Gloucester, MA 01930

RE: Preliminary Submission of Amendment 18 to the Northeast Multispecies (Groundfish) FMP

Dear John:

Today, my staff electronically sent the preliminary submission of the Final Environmental Impact Statement (FEIS) for Amendment 18 to the Northeast Multispecies (Groundfish) Fishery Management Plan (FMP) to your staff in the Sustainable Fisheries Division at the Greater Atlantic Regional Fishery Office. This preliminary submission does not start the 95 day clock as required by the Magnuson-Stevens Act for Formal Submissions.

The measures proposed in Amendment 18 recommend accumulation limits for the holdings of Potential Sector Contribution and Northeast Multispecies permits, and measures for Handgear A permits. Upon review of the Amendment 18 document, please communicate any comments and/or need for further document revision directly to me. The Council intends for the management measures proposed in this amendment to be implemented as early in the 2016 fishing year as possible.

Please contact me if you have any questions.

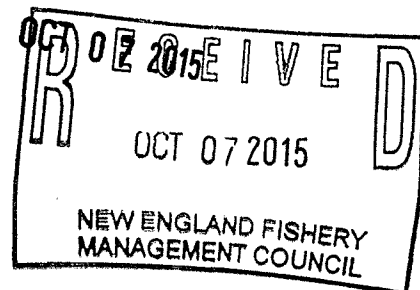
Sincerely,

Thomas A. Nies
Executive Director



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930-2276

Thomas A. Nies
Executive Director
New England Fishery Management Council
50 Water Street Mill 2
Newburyport, MA 01950



Dear Tom:

We recently completed groundfish year-end accounting for the 2014 fishing year, and the final report is attached to this letter. We sent a letter conveying this on October 6, 2015; however, that letter contained an error and we are resending the letter with corrections.

In fishing year 2014, the total annual catch limit (ACL) for northern windowpane flounder was exceeded by more than 85 percent. Because we knew inseason that an overage occurred in 2014, we already implemented the accountability measure (AM) for the 2015 fishing year, and no additional action is necessary at this time. However, as you know, the total ACL for northern windowpane flounder was also exceeded in the 2012 and 2013 fishing years, and as a result the AM for this stock was implemented for the first time in 2014. In response to all of these overages, I recommend that the Council closely evaluate the effectiveness of the AM in 2014 and 2015. The Council should consider catches of northern windowpane flounder by each fishery, likely causes of the recurrent overages, and updated stock information from the 2015 Operational Assessment to help inform whether current management measures are sufficient to minimize the frequency and magnitude of the overages and correct the problem(s) causing the overage. We will continue to monitor catch, and if we determine inseason that there has been an ACL overage in 2015, we will trigger the AM at the beginning of fishing year 2016 on May 1, 2016.

In fishing year 2014, the total ACL for Gulf of Maine (GOM) haddock was also exceeded by more than 55 percent due to catch by the recreational fishery. The recreational fishery also exceeded its sub-ACL of GOM cod by more than 25 percent. As you know, we already adjusted recreational measures for the 2015 fishing year for GOM cod and GOM haddock. Therefore, these overages do not trigger additional AMs for the recreational fishery.

The scallop fishery exceeded its sub-ACL for Georges Bank yellowtail flounder by 16 percent in fishing year 2014. However, because the total ACL was not exceeded, and the sub-ACL overage was less than 50 percent, this overage does not trigger an AM for the scallop fishery.



jc/jpl/f - 10/8/15

My staff are available to present the results of the 2014 year-end report at the next Groundfish Committee meeting. If you have any questions on the report, please contact Sarah Heil, Acting Groundfish Team Supervisor, at (978) 281-9257.

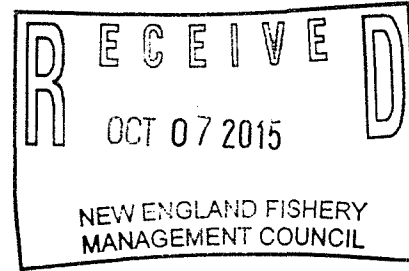
Sincerely,



John K. Bullard
Regional Administrator

cc: Frank Blount, Chair, NEFMC Groundfish Committee
Dr. Jamie Cournane, NEFMC Groundfish Plan Coordinator
Dr. Bill Karp, Director, Northeast Fisheries Science Center

Enclosure



Comments on the Northeast Multispecies Fisheries Management Plan Amendment 18

August 21, 2015

Daniel Deisenroth, Ph.D. and Pierre Cremieux, Ph.D.

Analysis Group Inc.

For

Patrick Kavanagh

K&K Fishing Corporation

84 Front Street, New Bedford, MA 02740

Corresponding author: Pierre Cremieux, Analysis Group Inc., 111 Huntington Ave., Boston MA 02199. pcremieux@analysisgroup.com . Tel: 617-425-8135

I. OVERVIEW

This document examines the proposed Amendment to the Northeast Multi-fishery (Large Mesh/Groundfish) Fishery Management Plan, dated 1985 and implemented in 1986.¹ Our main findings are the following:

- A. The Compass Lexecon Report cited by the New England Fishery Management Council in support of its “Council preferred” Alternative 6, which proposes limiting collective holdings of PSC to 15.5%, ignores the realities of the Northeast multispecies groundfish fishery, including barriers to entry and local markets for fresh fish. It has been criticized by peer reviewers and provides no methodologically or theoretically sound basis for its conclusions.
- B. There is general agreement that species- or stock-specific caps on PSC in the Northeast multispecies groundfish fishery are needed to avoid excessive concentration and general disruption to the fishery. Further, there is historical precedence in the British Columbia groundfish fishery for stock-specific limits on both “long-term share” and “annual allocation units.”²
- C. Our own review of the characteristics of the New England Fishery and intimate knowledge of the history of changes in regulatory conditions over the last decades indicate that species- or stock-specific caps on ACE are required to ensure a stable, diverse, and resilient fishery. Specifically, under capital-intensive conditions and assuming generally risk-averse fishers, the absence of species- or stock-specific caps virtually ensures increased concentration, disruption to existing fishers and general instability. Furthermore, the absence of a species- or stock-specific cap will increase risk, disrupt market-based pricing and result in further reductions in landings relative to ACEs.
- D. A lack of species- or stock-specific caps on ACE could lead to disruptions in the industry including the elimination of small businesses and will harm consumers in the form of higher market prices for fish.
- E. Species- or stock-specific caps on ACE come at no cost if they are not binding. If they are binding, their presence will be necessary to maintain the stability of the industry and protect consumers.
- F. For these reasons, we urge the Council to adopt species- or stock-specific caps on ACEs to avoid increased concentration, instability and bankruptcy in the industry as well as to avoid harm to small business and consumers.

¹ New England Fishery Management Council in consultation with Mid-Atlantic Fishery Management Council, “Fishery Management Plan, Environmental Impact Statement, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis for the Northeast Multi-Species Fishery,” August 1985; New England Fishery Management Council, “Northeast Multispecies Plan Overview,” accessed August 20, 2015 at <http://www.nefmc.org/management-plans/northeast-multispecies>.

² Strauss, K. (2013) “Catch Shares in Action: British Columbia Integrated Groundfish Program,” *Environmental Defense Fund*, at p. 7.

II. THE COMPASS LEXECON REPORT UPON WHICH THE COUNCIL IS RELYING³ IS DEEPLY FLAWED AND PROVIDES NO SCIENTIFIC BASIS FOR THE COUNCIL'S PREFERRED ALTERNATIVE

- A. The Compass Lexecon Report relies on inappropriate data, makes overly simplistic assumptions about supply and demand, and fails to account for local product markets. Specifically,
1. It assumes that acquiring market power for ACE for one stock would be unjustifiably costly, because other fishers would compete for the ACE and drive up the price.⁴ This ignores the differential in capital availability among fishers and the limited ability of smaller fishers to compete with larger, venture funded entities with multi-year horizons.
 2. It relies on a small and non-scientific set of personal interviews with permit holders and sector leaders to conclude that no efforts will be made to monopolize ACE at the sector level.⁵ Both the source and methodology make this conclusion dubious at best.
 3. It relies on a survey instrument with a 1.5% response rate (12 of 800 responded).⁶ Furthermore, Compass Lexecon failed to follow basic procedures to increase the response rate and ensure the representativeness of the sample.
 4. It acknowledges that there may be markets for fresh local fish.⁷ However, Compass Lexecon fails to explore these markets and does not evaluate demand-side elasticities.
- B. The Council claims that the Compass Lexecon Report was “peer reviewed.” However, reviewers’ responses to the Compass Lexecon Report were generally negative.
1. Reviewers found that the Compass Lexecon Report relied on inappropriate and biased data from personal interviews, and surveys with 1.5% response rate.⁸
 2. Reviewers consistently and correctly reject the simplistic supply-demand

³ “In developing measures to address these goals, the Council asked Compass Lexecon in July 2013 to analyze whether excessive shares exist in the Northeast multispecies fishery today and to recommend an appropriate excessive shares limit in the fishery. Their report was completed in December 2013 (Mitchell & Peterson 2013) and was peer reviewed in June 2014 by three Center for Independent Experts reviewers and one independent reviewer (Thunberg et al. 2014). The rationale for several of the accumulation limit alternatives in Amendment 18 are based on the Compass Lexecon analysis.” Amendment 18 Public Hearing Document, at p. 3.

⁴ “In short, basic supply and demand analysis and mathematics indicate that such a strategy is not logically impossible, but it is unlikely to be pursued profitably.” Mitchell, G. and S. Peterson (2013) “Recommendations for Excessive-Share Limits in the Northeast Multispecies Fishery,” [hereinafter “Compass Lexecon Report”], at p. 34.

⁵ Compass Lexecon Report, at p. 32.

⁶ Compass Lexecon Report, at p. 5.

⁷ Compass Lexecon Report, at pp. iii, 24.

⁸ Summary Review Report, at p. 3.

model proffered by Compass Lexecon. In our experience, the fishery is a dynamic, bioeconomic system that has experienced significant natural, regulatory and economic turmoil and where decisions made in one year affect available options in subsequent years.⁹

3. Reviewers correctly criticize Compass Lexecon’s recommendation of a cap of 15.5% as “ad hoc.”¹⁰
4. Reviewers criticize Compass Lexecon for assuming that current market conditions will persist in the future, such as assuming that competitive markets for ACE and lack of industry consolidation will persist.
 - (a) Reviewers are particularly skeptical of this assumption in light of a clear and significant trend towards consolidation.¹¹ For example:

“According to Murphy et al. (2014), the total number of active groundfish vessels in the fishery continues to decline; the fishery lost 152, or 16.6%, of its active vessels over the 2009-2012 period, and consolidation in the industry continues. For the vessels remaining in the fishery, the percentage enrolled in sectors is increasing while the percentage remaining in the common pool is declining.”¹²

III. THE MARKET FOR ACE IS VULNERABLE TO MARKET POWER AND CONSOLIDATION

- A. The fishing industry is characterized by large capital investments and the influx of venture backed entities. According to NOAA, the lack of speculative activity observed in the last few years should not be understood to imply a lack of speculative and venture capital activity after Amendment 18 has been finalized. Specifically, on the control date announcement, NOAA indicated that “Setting the control date is also intended to discourage speculative behavior in the market for fishing privileges, until the council decides whether and how to develop limitations on accumulation of fishing privileges.”¹³ Therefore, the Council should ensure that rules in Amendment 18 will result in a diverse, resilient and stable groundfish fishery despite the likely influx of speculators and outside capital. It is useful to remember that speculation and outside capital were observed when fishing rights were made transferable during the days at sea program. Such influx risks enhancing consolidation of market power.

⁹ Summary Review Report, at pp. 2-3.

¹⁰ “CL recommended a 15.5% cap on Annual Catch Entitlement as a maximum holding. Their conclusions, especially with respect to future exercise of market power, do not have a sound theoretical or empirical foundation. The recommendation of 15.5% is ad hoc.” Kruse, J.B. (2014) “Review of Compass Lexecon’s Report ‘Recommendations for Excessive Share Limits in the Northeast Multispecies Fishery,’” [hereinafter “Kruse Review Report”], at p. 3.

¹¹ “Recommendations for Excessive Share Limits in the Northeast Multispecies Fishery” External Independent Peer Review by the Center for Independent Experts Evaluation of the Study, Summary Report, [hereinafter “Summary Review Report”], at p. 3.

¹² Bjorndal, T. (2014) “Evaluation of the Study: ‘Recommendations for Excessive Share Limits in the Northeast Multispecies Fishery.’” External Independent Peer Review by the Center for Independent Experts, Final Report, [hereinafter “Bjorndal Review Report”], at p. 13.

¹³ <http://www.greateratlantic.fisheries.noaa.gov/nero/hotnews/NR1108/>

1. The inability to fish for even one year as a result of insufficient or excessively priced choke species ACEs will likely result in smaller fishers being forced out of business permanently because of significant leverage and financial obligations.
2. The Compass Lexecon Report argues incorrectly that there would be no profitable strategy to accumulate a controlling share of ACE for any species. However they admit that such an accumulation may happen anyways due to “luck.”¹⁴ Furthermore, they ignore the impact of limited access to capital and risk aversion. For example, consider the following scenario:
 - (a) In year 1, a fisher backed by venture capital or with deep pockets (Fisher A), drives up the price of ACEs for a choke species (say Gulf of Maine Cod, GOM Cod for short) beyond its market value in Year 1 and acquires a controlling share of the ACEs for the species (which still represent less than 1% of the multispecies ACEs.
 - (b) Smaller fishers must now (1) refrain from fishing in the Gulf of Maine to avoid Cod by-catch or (2) purchase ACEs for GOM Cod from Fisher A.
 - (c) If the smaller fishers find it financially unprofitable to purchase the ACEs for GOM Cods, they are prevented from fishing in an area that may result in them having to sell their boats and gear at discounted prices.
 - (d) In this scenario, only Fisher A will have a financial incentive to purchase the boats and gear but will require the lease of ACEs which are of no value to other fishers because of the lack of by-catch GOM Cod ACEs. Therefore, the ACEs will sell at below market prices.
 - (e) Surviving firms including Fisher A may also endeavor to purchase more PSC, which would be sold at a discount due to the exit of smaller firms, exacerbating the trend towards consolidation.
 - (f) In year 2, ACEs are for sale again but equipment is in a more concentrated set of hands and entities with ACE ownership from Year 1, and therefore most likely to bid in year 2, are fewer than would have been if species- or stock-specific ACEs had been set in Year 1.
 - (g) The process repeats itself, and may even accelerate as small fishers exit early due to the *threat* that Fisher A continues to pursue its strategy.
 - (h) For Fisher A, the purchase of low priced ACEs and equipment (in step d) make the operation profitable. Furthermore, increased concentration will result in higher prices which will also help cover the predatory behavior of step (a)

¹⁴ Compass Lexecon Report, at p. 34.

3. While the scenario above is by no means certain, it is a real risk that can be avoided by the selection of species- or stock-specific caps and must be balanced against the lack of risk associated with such species- or stock-specific caps.
- B. Relative Risk Aversion favors large fishers and fishers backed by external sources of funding.
1. The Compass Lexecon Report argues that an attempt to acquire a controlling share of ACE in a given year would be “risky.”¹⁵
 2. Because small businesses are less able to diversify their risk and are therefore more risk averse in the context of the fishery, it is more likely the larger firms that would engage in such “risky” behavior particularly if backed by external capital.
- C. As illustrated in the scenario from section A.2., owners of a controlling share of ACE for just one species may extract monopoly rent from other fishers or exclude them from the market thereby consolidating it and justifying the acquisition of this ACE in the first place even at prices that exceed the value of that stock.
1. The Compass Lexecon Report correctly points out that while the price of ACE for a given species is related to the profit earned on the ultimate sale of that species, the price of ACE for some “choke stocks” may reflect the value of other, more abundant stocks.¹⁶
 2. One reviewer echoed this concern, stating that “[t]he potential therefore does exist that control of ACE for a crucial constraining stock can also lead to broader control of a target species.”¹⁷
 3. The monopoly rent extracted by the owner of the “choke stock” ACE may justify the acquisition of the ACE in the first place.
- D. An additional scenario is presented in Appendix 1 below to show how even unintended or unplanned control of a “choke stock” ACE could gradually lead to industry consolidation.

IV. LOCAL MARKETS COULD BE AFFECTED AND CONSUMERS HARMED

- A. A consolidation of control over ACE may lead to higher prices in local markets. This would harm consumers.
1. The Compass Lexecon Report acknowledges that markets for fresh local fish exist. The authors did not, however, explore these markets or demand

¹⁵ Compass Lexecon Report, at p. 34.

¹⁶ “The competitive price of a species’ ACE reflects the actual scarcity of its available ACE relative to the availability of that species, as well as, in some circumstances, the value allowing for bycatch of the species during harvesting of other species.” Compass Lexecon Report, at p. ii.

¹⁷ Kruse Review Report, at p. 6.

elasticities for local products. Until this issue is carefully analyzed, the risk of consumer harm exists and can be avoided through species- or stock-specific caps.

2. Reviewers of the Compass Lexecon Report agree that these local markets should have been studied further, at least in the form of a literature review.¹⁸
3. Anecdotal evidence suggests that there is a thriving market for local, fresh, sustainable fish.¹⁹

V. SEVERAL ORGANIZATIONS, INCLUDING COMPASS LEXECON, RECOMMEND BY-SPECIES PSC CAPS. BY-SPECIES ACE CAPS SHOULD ALSO BE INSTITUTED.

A. By-species PSC caps are necessary to prevent long-run consolidation of the fishing industry.

1. Of the six alternatives considered by the Council, four include PSC caps for individual species or stocks.
2. Even the Compass Lexecon Report strongly recommends by-species PSC Caps:

“The question remains whether control over a significant accumulation of PSC and the resulting ACE could be a source of market power in transactions for ACE in the annual lease market. This issue is of greatest concern if the substantial accumulation of PSC or ACE is for a choke stock.”²⁰

“As noted above, market power could be exercised in two ways. Withholding ACE may reduce the supply of fish, raising the price to consumers to the benefit of some fishermen. Withholding ACE can also raise the price of the ACE traded to other fishermen above the competitive level. When this occurs, fishery rents that should accrue to one group of fishermen are transferred to the entity exercising market power.

Market power hurts consumers and causes economic inefficiency. Some industries, such as electricity and natural gas distribution, are directly regulated to control the exercise of market power. Other industries are subject to the antitrust laws, which forbid mergers and anticompetitive conduct that perpetuate significant market power. An excessive-share rule falls into this second category of regulation because it would restrict some

¹⁸ External Independent Peer Review by the Center for Independent Experts Evaluation of the Study: “Recommendations for Excessive Share Limits in the Northeast Multispecies Fishery” Summary Report, at p. 4..

¹⁹ Restaurants and other individuals who have preferences for local products would be forced to pay a premium price if supply were restricted via control of a “choke stock.”

²⁰ Compass Lexecon Report, at p. 28.

*permit or ACE transactions but allow others.*²¹

3. Several reviewers recommend or suggest by-species or by-stock PSC caps.²²
4. The British Columbia groundfish fishery, dubbed by one reviewer as “[t]he best example of the management of multispecies fisheries with output controls[,]”²³ includes by-species “concentration caps.”²⁴

Note that the British Columbia caps apply *both to long-term allocations (similar to PSC) and to within-year trades (similar to ACE)*.

B. The ACE market should also have by-species or by-stock caps.

1. As explained above and in Appendix 1 below, increased concentration, instability, and fisher bankruptcy as well as significant harm to small business and consumers could stem from a lack of multispecies ACE limits because of the likely consolidation that will ensue.
2. If, as argued by Compass Lexecon and presumably believed by the Council, there is a low probability that market power will develop in the market for a particular ACE in a particular year,²⁵ then species specific ACE caps will not be binding and will have no negative impact on the fishing industry.
 - (a) Note again that there is historical precedence for by-species caps on ACEs in the British Columbia groundfish fishery.

²¹ Compass Lexecon Report, at p. 20.

²² Kruse Review Report, at p. 9; Schmitz, A. (2014) “Center for Independent Experts (CIE) Peer Review of the Study, ‘Recommendations for Excessive Share Limits in the Northeast Multispecies Fishery,’” at p. 11.

²³ Bjorndal Review Report, at p. 15.

²⁴ Strauss, K. (2013) “Catch Shares in Action: British Columbia Integrated Groundfish Program,” *Environmental Defense Fund*, at p. 7.

²⁵ Compass Lexecon Report, at p. 34.

VI. APPENDIX 1 – POTENTIAL SCENARIO LEADING TO MARKET CONSOLIDATION

A. Market Share Gradually Concentrated

1. Under this scenario, a small number of individual fishers occasionally get lucky and obtain a large ACE for what turns out to be a “choke species.”
2. These fishers utilize their market power to extract rent from other fishers who require the “choke stock” ACE to fish for other species.
3. Some fishers cannot afford to purchase the “choke stock” ACE, and instead sell equipment, sell their ACEs (at a depressed price given the increase in supply and increased concentration on the demand side) and exit the industry. Thus, accumulation of market power stemming from accumulation of “choke stock” ACE results in bankruptcy, instability and potential harm to small business and consumers.
4. These fishers may even elect to sell PSCs (again at depressed prices) to cover their living costs.
5. Due to the challenges associated with entering the fishing industry, namely the increased risk from the choke species ACEs and significant capital expenditures, incumbent fishers are more likely to acquire the (likely discounted) equipment and PSC.
6. Over time, the industry gradually ratchets towards consolidation as larger less risk averse firms capitalize on opportunities to purchase discounted equipment and PSC. Simultaneously random natural events lead some fishers to get lucky as a result of random ACE acquisitions thereby adding random risk and uncertainty to overall consolidation, both undesirable characteristics for a stable, perennial fishery.

MEMORANDUM

FROM: Maine Coast Fishermen's Association, Cape Cod Commercial Fishermen's Alliance
TO: New England Fishery Management Council
DATE: September 30, 2015
RE: EM Cost Comparison Document

RECEIVED

SEP 30 2015

NOAA Fisheries recently released a cost report, "A Preliminary Cost Comparison of At-Sea Monitoring and Electronic Monitoring for a Hypothetical Groundfish Sector" (NEFSC, 2015) that showed comparisons between the costs of the existing at-sea monitoring program (ASM) and the costs of a hypothetical electronic monitoring (EM) program in the Northeast groundfish fishery.

While we appreciate the agency's efforts to address unanswered questions pertaining to the cost of implementing and maintaining an EM program, we are concerned that the model proposed in this report is unnecessarily outdated and cost-prohibitive. If we hope to build a better monitoring program in the Northeast, then we must be innovative and forward-thinking. This report, while thorough, only reflects a very narrow view of the possibilities and potential EM solutions.

This report was compiled under the assumption that our current ASM program provides meaningful levels of accountability and embodies a 'gold standard' for monitoring. In actuality, the current system of ASM falls short of meeting its identified goals and objectives while also imposing an unaffordable financial burden on industry. A newly-designed EM program should not be based upon the current ASM program, which is outdated, ineffective and costly; instead we should be using this opportunity to design an improved monitoring program that better reflects the diverse needs of our fishery and recent technological advances.

In the cost comparison report, the agency concludes that EM is more expensive than the current ASM program. This conclusion is based on incorrect assumptions and doesn't accurately reflect the current status of EM development or the marketplace which can substantially reduce costs. Some of those initial assumptions include:

- 1) A cost comparison of 18% ASM coverage with 100% EM coverage.
- 2) Cost estimates were derived by averaging numbers provided by three separate providers; this artificially inflates price and is inconsistent with how fair markets operate.
- 3) This document proposes the use of outdated and expensive implementation methods that do not reflect more cost-effective advances realized in EM programs in other regions or in current pilot programs in New England.

Furthermore, the cost report fails to quantify the intangible benefits of an EM program:

- 1) Increased business autonomy: EM negates constraining trip notification requirements (PTNS) and improves safety-at-sea by removing the requirement to carry a human at-sea monitor.
- 2) Better data: EM creates the potential for more accurate and standardized data collection and, furthermore, creates the opportunity for fishermen-dependent data to be utilized in stock assessments or research.
- 3) Incentivizes high standards of individual performance: EM provides a platform to allow fishermen to reduce their own costs based upon individual performance. In pilot programs we have witnessed Captains significantly decrease review time, and therefore costs, by changing handling techniques.

In closing, the agency has the opportunity to work collaboratively and closely with industry and other industry stakeholders to create an improved monitoring program using EM technologies. To achieve this, the agency must embrace the following guiding principles:

- 1) There is a need for an improved monitoring program that more fully realizes the goals and objectives of Amendment 16, without attempting to realize additional goals and objectives that are not monitoring requirements. While transitioning to an EM program would present an opportunity to

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expand the range of possible uses, such a decision would negatively impact program cost and the implementation timeline. In the interest of building a realistic and affordable monitoring solution, it is imperative that we exercise restraint and limit the program goals to what is necessary to successfully monitor this fishery.

- 2) Other fisheries and other regions have implemented successful EM programs. Few, if any, of these programs were perfect from the outset; rather, these programs were improved over time through an iterative and collaborative process. Implementing EM will require both agency and industry to take a leap of faith.

Sherie Goutier

From: Olivia Rose Percoco <opercoco@uvm.edu>
Sent: Thursday, September 24, 2015 3:46 PM
To: comments
Subject: A18

To the New England Fisheries Management Council,

Here at the University of Vermont, students are concerned about the effects A18 will have on fleet diversity and our ocean as a common resource; we wish we could make the Council meeting next Wednesday, but because of course schedules and travel logistics, we regrettably cannot. We will have to resort to email communication, and hope that this message is read.

We know that it is extremely difficult, if not impossible, to make all stakeholders happy. We run into the same problem when we try to create a sustainable campus food system, because what is good policy for producing cheap food is also bad policy for small-scale producers and the environment. However, our values lie with supporting local communities and keeping the ocean ecosystem healthy (which seem in line with your priorities too!) Fortunately, research shows that there are currently models in existence that can give us the "best of both worlds," and preserve fleet diversity whilst also ensuring that fisheries aren't fishing above Total Allowable Catch.

Proposed solutions:

A number of models exist that try to maximize sustainability given current policies. One of these systems is the cooperative model. In this system, instead of total allowable catch allotments or tradeable credits granted to individuals, a quota is given to the cooperative body and is managed as its members decide. At the end of the season, the profit made by the cooperative is divided up amongst the group in proportion to each member's contribution. One benefit of this system is that the cooperative's central management is largely credited with reducing transaction costs, since inputs are managed via contracts, rather than across markets. Furthermore, those with lesser skills are drawn to the co-op model, lessening the barriers to entry, preserving fleet diversity, and barring consolidation of power in the hands of those with the most resources.

The cooperative, despite its benefits to its members, is still a profit maximizing body. In order to maximize profits, the cooperative must manage itself to minimize effort and simultaneously maximize catch. This cost minimization problem is expressed as follows:

$$\min (\sum(\alpha + d - G(x))\gamma T) + \sum(\phi T + x)$$

In this equation, d represents distance from shore, $G(x)$ represents an individual's input of non-rival public input, α represents the common cost parameter, T represents time spent fishing, and γ represents "individual skill" or the rate at which an individual can apply effort. The term ϕT is the opportunity cost of time spent fishing, and the product of T and γ is effort (Deacon, Parker, & Costello, 2013.) Recall that the further from shore, the higher the cost per unit catch, but also the lower effort per unit catch. This makes fishing further off shore more profitable for those with larger vessels and gear. Furthermore, non-rival public effort decreases cost per unit effort. So, given these variables, the profit minimization equation is the sum of common costs and distance from shore, multiplied by effort, *plus* the sum of the opportunity cost of fishing and an individual's contribution to public input. Positive harvest times are assigned to those members who are the most efficient fishers, meaning the ratio of opportunity cost to individual skill (aka cost per unit effort) is lowest, and thus these fishers get the largest amount of time to fish (Deacon, Parker, & Costello, 2013.). In summary, this equation states that members should fish as close to shore as possible to reduce cost per unit catch, and fishing is restricted to those with the lowest cost per unit effort and effort is slowed to extend the season. Despite the fact that fishing is reserved for the most efficient, *all* cooperative members would receive some dividend of the annual profits.

The main benefit of cooperative management over independent fishing is the incentive to provide for the public good; individual fishers have no such incentive. Additionally, it is economically advantageous for fishers below a

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certain skill level to join the cooperative. This is demonstrated in the figure below. where any fisher below skill level e is better off joining the cooperative (Deacon, Parker, & Costello, 2013.):

Interestingly, if too large a portion of catch share goes to a cooperative, this is bad for independent fishers, and therefore not Pareto improving. However, if the cooperative's share is too low, the cooperative will not form. Therefore, in order to create a Pareto improving situation in which no one is made worse off by the betterment of others (i.e. efficient allocation), the catch allotment for the cooperative must fall between the proportion of catch share per fisherman that would make each independent equally well off, and the low proportion that would make the cooperative unable to form (Deacon, Parker, & Costello, 2013.).

While cooperatives are a good solution that seem to be working well (Alaska is a great example), they aren't the only solution for maintaining fleet diversity. Another solution which is supported by small-scale fishers is the creation of an inshore-offshore line.

Create an inshore-offshore line:

Small-scale fisherfolk sometimes call for the creation of an inshore-offshore line that separates inshore fishing management from offshore fishing management. Between the shore and the inshore line would be managed by the state, whereas offshore would be managed by the national government. By localizing inshore management, the interests of small-scale fishers can be defended and their opinions more easily heard. This can be facilitated by the creation of an extension service similar to the agricultural extension service created in the mid-1900s. The reason it is assumed the in-shore line will help small-scale fishers specifically is because small-scalers don't have the resources (vessels) to expand further offshore, and as discussed above, the further from inshore one fishes, the higher cost per unit effort. Larger-scale fishing vessels with more efficient gear can internalize the extra cost without a problem because of the scale at which they operate. Also, for larger-scale fishers, fishing off-shore is appealing because of the lower effort per unit catch required in these areas, despite the higher cost per unit catch. It seems this proposal is beneficial to everybody, and it's now up to each regional Fisheries Management Council to decide whether to mandate it.

Deacon, R., Parker, D.P., Costello, C. (2013.) Reforming Fisheries: lessons from a self-selected cooperative. *The Journal of Law & Economics*, 56 (1) , pp. 83-125 Retrieved from: <http://www.jstor.org/stable/10.1086/667864>

Thank you for your time,

Olivia Percoco