Atlantic States Marine Fisheries Commission

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MEMORANDUM

July 29, 2014

To: **American Lobster Management Board**

From: **American Lobster Technical Committee**

Re: **American Lobster Addendum XVII Evaluation**

Summary
Based on the analysis presented, the required reduction by LCMA, with the exception of LCMA 6 (CT evaluation only), were either not achieved or were achieved mainly as a result of declining stock abundance / effort.

Background
Per Addendum XVII all Lobster Conservation Management Areas (LCMAs) within Southern New England (SNE) were required to reduce exploitation by 10% in order to address rebuilding. The reference base years for evaluating the reduction are 2007 – 2009. The Technical Committee (TC) previously reviewed proposals submitted by the LMCAs to ensure they met the criteria established by the American Lobster Management Board (Board) within Addendum XVII. The TC met via conference call on July 10th to evaluate if the approved measures have met the 10% reduction requirement. The management measures approved by the Board are as follows:

LCMA 2

- Mandatory V-notching and immediately release of legal sized egg-bearing female lobsters effective June 1, 2012
- V notches must be to the right of the center flipper as viewed from the rear of the female lobster when the underside of the lobster is down. The v notch should be made by means of a sharp blade bladed instrument, at least ¼ inch and not greater than a ½ inch in depth and tapering to a sharp point.

LCMA 3

- Minimum gauge increases to 3 $^{17}/_{32}$ inches effective January 1, 2013

LCMA 4

- Mandatory V-notching and immediately release of egg-bearing female lobsters effective July 1, 2012
- V notches must be to the right of the center flipper as viewed from the rear of the female lobster when the underside of the lobster is down. The v notch should be made by means of a sharp blade bladed instrument, at least ¼ inch and not greater than a ½ inch in depth and tapering to a sharp point.
- A season closure to the landing of lobsters from February 1st through March 31st.

- During the February 1st to March 31st closure, lobster potters will have a two week period to remove lobster pots from the water and may set lobster pots one week prior to the end of the closed season.

LCMA 5

- Mandatory V-notching and immediately release of egg-bearing female lobsters effective January 1, 2013
- V notches must be to the right of the center flipper as viewed from the rear of the female lobster when the underside of the lobster is down. The v notch should be made by means of a sharp blade bladed instrument, at least ¼ inch and not greater than a ½ inch in depth and tapering to a sharp point.
- A season closure to the landing of lobsters from February 1st through March 31st.
- During the February 1st to March 31st closure, lobster potters will have a two week period to remove lobster pots from the water and may set lobster pots one week prior to the end of the closed season.

LCMA 6

- A seasonal closure from September 8th to November 28th
- A two week gear removal and two week gear replacement grace period during the closed season, and no lobster traps can be baited more than 1 week prior to season reopening.

Evaluation

It is not possible for the TC to calculate exploitation to determine if there was a 10% reduction without running the full assessment model for SNE. The TC also has no means to calculate LCMA level estimates of abundance and exploitation for all of the LCMA's. This would require fishery independent relative abundance indices and fishery dependent landings data collected on the same spatial scale (by LCMA), and this currently does not exist for all SNE LCMA's. As such, the TC used nominal landings as a proxy for exploitation. The TC notes that there are many issues with using landings as a proxy for exploitation. The evaluation was done on a state-by-state basis and then the respective states were grouped to evaluate the overall effect by LCMA.

Massachusetts

- Implemented the mandatory V-notching and immediately release of legal sized egg-bearing female lobsters effective June 1, 2012 in Area 2. Implemented a minimum gauge increases to 3 $^{17}/_{32}$ inches in LMA 3 effective January 1, 2013. The Massachusetts report was based only on the state waters of Area 2, as there is no information or sampling conducted in Area 3.
- In comparison to the reference years, landings in 2013 declined by 12.4%. To calculate relative exploitation, catch in pounds was converted to catch in numbers. Based on that analysis, there was a 77% decline in exploitation.
- There has been a dramatic decline in fishing effort (trap hauls) and active permits since the late 1990's. Although the current active fishers are reporting higher catches, there are fewer people participating in the fishery.
- The ventless trap and trawl surveys have seen a dramatic decline through 2007 and then have been low and stable since 2008.

- Successful V-notching programs rely on high encounter rates of egg-bearing females. In LMA 2 the encounter rate of egg-bearing females was not high enough to ensure substantial v-notching rates due to decreased effort observed in this fishery.

TC Consensus: Massachusetts did meet 10% reduction based on landings, however it is very likely that this was not due to implementation of the V-notching program, but rather due to substantial decline in fishing effort. The V-notching program in LCMA 2 is likely not the best management tool for this area because it relies on fairly high levels of fishing effort to encounter and notch a substantial number of egg-bearing females. Managing effort, including latent effort, would be a better approach.

Rhode Island

- Implemented the mandatory V-notching and immediately release of legal sized egg-bearing female lobsters effective June 1, 2012 in Area 2. Implemented a minimum gauge increases to 3 $^{17}/_{32}$ inches effective January 1, 2013 in Area 3. The Rhode Island report was based only on the state waters of Area 2, as there is no information or sampling conducted in Area 3. However only 22% of catch came from Area 2 in 2012.
- Relative to the reference years, landings have declined by 25%.
- Most of the effort focused in offshore waters. There will not be sea sampling in LCMA 3 in the future.
- There has been a 30-48% reduction in the ventless trap abundance index, a 95% reduction in the fall trawl survey index, and 75% reduction in spring trawl survey abundance index relative to reference years.
- V-notching rates during the reference period were 19.39% and in 2013 had decreased to 0.2%.

TC Consensus: Rhode Island met 10% reduction requirement, based on landings. The TC finds the reduction was not due to the implementation of the V-notching program in LCMA 2, but due to decline in effort. The TC was unable to evaluate the effect of the gauge increase in LCMA 3.

Connecticut

- Implemented a seasonal closure from September 8th to November 28th in LCMA 6 fishery
- Landings in 2013 were 68% lower than 2009. The seasonal closure reduced landings, but overall landings have also dropped.
- Effects of the closures were likely seen in 2012 as fishermen knew the closure was imminent. Additionally, many of the fishermen didn't put their gear back in after the closures, which further reduced landings.
- Average license numbers dropped from 239 (average 2007-2009) to 161 (2013). The number of active fished traps decreased from 67,000 to 30,000 between 2009 and 2012.
- When you have a declining stock, a seasonal closure may be an effective way to implement a reduction in landings while reducing active and possibly latent effort.
- CT fishermen have been losing market share over time. With the seasonal closure, the fishery was compressed and this could have marginal benefits in gaining back market share.

TC Consensus: Connecticut achieved a greater than 10% reduction in landings, most of which could be attributed to implementation of the seasonal closure but also due to decreased market demand and abundance.

New York

- Evaluation unavailable due to issues with landings data.

New Jersey

- Implemented a minimum gauge increases to 3 $^{17}/_{32}$ inches effective January 1, 2013 in LCMA 3. Implemented a seasonal closure from February 1 – March 31 and V-notching program in LCMAs 4 and 5.
- In LCMA 3, a 42% reduction in catch was achieved, but likely due to the loss of one of the three main fishing boats.
- In LCMA 4, landings increased by 3.26% in comparison to the reference base years.
- In LCMA 5, a 33% reduction was achieved.
- Effort in LCMA 3 and 5 has decreased over time, while effort in LCMA 4 has remained relatively constant.

TC Consensus: The required reduction was achieved in LCMAs 3 and 5, but was not achieved in LCMA 4. Implementation of the seasonal closure and V-notching program had mixed success. In LCMA 3, the reduction was likely due to loss of one of the three main LCMA 3 fishermen. For LCMAs 4 and 5, the TC recommends that the LCMT should review the seasonal closure timing. For example, the TC notes that the original proposal in LCMA 4 was a seasonal closure from April 29 – May 31, when the average 2007-2009 landings were 10% of the annual landings.

Maryland

- Implemented V-notching and closed season (February 1st through March 31st) in LCMA 5.
- Overall landings have increased since reference period. February and March account for less than 1% of landings (average 2007-2013).
- CPUE and days fished have gone up since 2001, but there are a minimal number of participants (less than 7,000 traps fished).

TC Consensus: MD did not achieve the 10% reduction. Landings have actually increased since the reference period. However, Maryland has less than 1% of the coastwide lobster landings and this increase had a very limited impact on the SNE stock.

LCMA Evaluation

- LCMA 2 evaluation was based on information from Massachusetts and Rhode Island. Based on the analysis presented, the required reduction was met, but likely not due to the implemented management measures.
- LCMA 3 evaluation did not include information from Massachusetts. Based on the Rhode Island and New Jersey analysis presented, the required reductions were achieved, but likely not due to the implemented management measures.

- LCMA 4 evaluation did not include information from New York. Based on the New Jersey analysis presented, the required reductions were not achieved.
- LCMA 5 evaluation was based on information from New Jersey and Maryland. Based on the analysis presented the required reductions were not achieved.
- LCMA 6 evaluation did not include information from New York. Based the Connecticut analysis presented, the required reduction was met and much of the reduction could be attributed to the management measures.

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