# PROCEEDINGS OF THE 

## ATLANTIC STATES MARINE FISHERIES COMMISSION

## AMERICAN LOBSTER MANAGEMENT BOARD

Crown Plaza Old Town
Alexandria, Virginia
May 5, 2009

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## INDEX OF MOTIONS

1. Approval of Agenda by consent (Page 1).
2. Approval of Proceedings of February 2, 2009 by Consent (Page 1).
3. Move to the Lobster Stock Assessment and Peer Review Advisory Report (Page 18). Motion by James Gilmore; second by William Adler. Motion passes (Page 18).
4. Move to adopt Option B in Section 4.1.1 that creates a 20 percent conservation tax for permit holders transferring partial allocations and a 10 percent conservation tax for permit holders transferring whole allocations or businesses (Page 23). Motion by Dan McKiernan; second by George Lapointe. Motion passes (Page 24).
5. Move to adopt Option B in Section 4.1.2 that results in a new trap cap of $\mathbf{2 , 0 0 0}$ traps (Page 24). Motion Dan McKiernan; second by Pat White. Motion carries (9 in favor, 0 opposed, 1 abstention, 0 null (Page 24).
6. Move to approve Addendum XIV as modified today. Regarding states' compliance deadlines, states shall be required to enact regulations instituting these changes upon NMFS completing rulemaking on Addendum XIV recommendations (Page 24). Motion by Dan McKiernan; second by Mark Gibson. Motion carries (9 in favor, 0 opposed, 1 abstention, 0 null (Page 25).
7. Move that the board initiate an addendum to cap permits to fish traps in federal waters of LCMA 1 by requiring a qualification process for federal permit holders to obtain authorization to maintain LCMA 1 permits; A, federal permit; B, proof of LMA 1 designation as of January 2, 2009; and, C, appropriate trap tag orders for LMA 1 for years 2004 through 2008 as of January 2, 2009. Further, include the consensus recommendations to cap permits but not reduce the number of permits in Area 1; maintain the ability to transfer trap-only permits within Area 1; continue to allow Area 1 permits to be bought and sold.

MOTION REWORDED ON PAGE 27: Move that the board initiate an addendum to cap permits to fish traps in federal waters of LCMA 1 by requiring a qualification process for federal permit holders to obtain authorization to maintain LCMA 1 permits; A, federal permit; B, proof of LMA 1 designation as of January 2, 2009; and, C, appropriate trap tag orders for LMA 1 for any one year between 2004 through 2008 as of January 2, 2009; including the consensus recommendations to cap permits but not reduce the number of permits in Area 1; maintain the ability to transfer trap-only permits within Area 1; continue to allow Area 1 permits to be transferred. Motion by Doug Grout; second by Pat White. Motion carried (Page 28).
8. Adjourn by consent (Page 29).

## ATTENDANCE

Board Members

George Lapointe, ME (AA)
Pat White, ME (GA)
G. Ritchie White, NH (GA)

Douglas Grout, NH (AA)
Rep. Dennis Abbott, NH (LA)
William Adler, MA (GA)
Dan McKiernan, MA, proxy for P. Diodati (AA)
Mark Gibson, RI (AA)
David Simpson, CT (AA)
Dr. Lance Stewart, CT (GA)
James Gilmore, NY (AA)
Pat Augustine, NY (GA)

Brian Culhane,NY Chair/Proxy for Sen.Johnson (LA)
Peter Himchak, NJ DFW, proxy for D. Chanda (AA)
Tom Fote, NJ (GA)
Gilbert Ewing, NJ, Legislative Proxy
Roy Miller, DE, proxy for P. Emory (AA)
Bill Goldsborough, MD, GA)
Jack Travelstead, VA, proxy for S. Bowman (AA)
Louis Daniel, NC (AA)
Bill Cole, NC (GA)
Harry Mears, NMFS
A.C. Carpenter, PRFC
(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)

## Ex-Officio Members

Kim McKown, Technical Committee Chair
Bob Baines, Advisory Panel Chair

## Staff

Vince O’Shea
Robert Beal
Toni Kerns
Brad Spear

## Guests

David Spencer, AOLA
Bonnie Spinnazzola, AOLA
Janice Plante, Commercial Fisheries News
Arnold Leo, E. Hampton, NY
John German, LISLA
Wilson Laney, USFWS
Chris Hayes, ACCSP, Washington, DC

Kyle Overturf, CT DEP
Vicki Cornish, Ocean Conservancy
Chip Lynch, NOAA
Bob Ross, NMFS - NE
Terry Stockwell, ME DMR

The American Lobster Management Board of the Atlantic States Marine Fisheries Commission convened in the Presidential Ballroom of the Crowne Plaza Hotel Old Town, Alexandria, Virginia, May 5, 2009, and was called to order at 3:20 o'clock p.m. by Chairman Brian Culhane.

## CALL TO ORDER

CHAIRMAN BRIAN CULHANE: I would like to call the Lobster Board Meeting to order. The first order of business is to approve the agenda. Does anybody have any additions they would like to make to the agenda?

## APPROVAL OF AGENDA

DR. LANCE STEWART: Mr. Chairman, I would like to add other business, Area 6 Update V-Notch Program for Long Island Sound.

## APPROVAL OF PROCEEDINGS

CHAIRMAN CULHANE: We will do that under other business. Does anybody else have anything else to add to the agenda? Okay, the next thing is to approve the proceedings from the February meeting. Does anybody have any changes? Seeing none, the February proceedings are approved.

## PUBLIC COMMENT

The next thing on the agenda is public comment. Is there anybody in the audience who would like to make a comment on something that's not on the agenda? Okay, moving on, the first thing we have is a stock assessment report and Kim McKown is going to handle that for us.

## STOCK ASSESSMENT REPORT

MS. KIM McKOWN: This afternoon I am going to talk on just a brief overview of the Lobster Stock Assessment that we just completed in March. I am going to go over briefly stock definitions and data sources, methods, results, stock status and research recommendations.

The lobster resource ranges from Canada down to North Carolina. For assessment purposes, we have broken it down into three stock units, the Gulf of Maine, which is in yellow; Georges Bank in blue; and Southern New England in green. The fishery is managed from Maine to North Carolina by the Atlantic States Marine Fisheries Commission in the inshore waters, zero to three miles; and the National

Marine Fisheries Service from three to two hundred miles.

Addendum III developed seven stock management areas, and those management areas span stock units. In particular Area 3 goes all the way from North Carolina up through Maine. I would like to talk a bit about the data. This is the Gulf of Maine landings from 1982 to 2007. You can see that in the early eighties landings were pretty stable. Then they started increasing in the nineties up to about 2001, and they have been pretty stable at very high levels in recent years.

The majority of the Gulf of Maine landings is made up from the state of Maine, which is in gray. Again, the majority of the increase has been from the state of Maine landings. Next in importance are the landings from Massachusetts, which is in black on the bottom. Landings in Massachusetts increased until about early 2000 s and then it declines.

New Hampshire also adds to the Gulf of Maine landings, a small proportion, and that you can see that in the hash bars up on the top. This shows the Gulf of Maine effort. We don't have good information or good time series on trap hauls, so we have been using just the number of traps reported used as our measure of effort.

For the Gulf of Maine we saw basically sort of variable trap landings in the early eighties and then we saw an increase starting in the early nineties to pretty high levels, over 3.5 million traps reported being fished in the Gulf of Maine. The majority of them are reported from the state of Maine. Next in importance is Massachusetts. The Massachusetts' trends are a little different than Maine where you had sort of increasing trap levels, and then recently we have seen actually a decline in the use of traps.

This shows the size of the commercial fishery. The median size has been pretty steady throughout the time series for both female and male. The difference for females, I think it has increased about two millimeters over the time series, and males have increased three millimeters.

This shows our fishery-independent surveys, the trawl surveys that we utilized for our modeling. In the dark line with the square boxes is the Northeast Fishery Science Center Fall Trawl Survey, and you can see that there has been an increase in the Gulf of Maine into basically the late nineties, early 2000s and then a recent decline.

We also utilized the Massachusetts DMS Trawl Survey, which is mainly done in Massachusetts Bay.

Here again we saw a bit of an increase and then stable in the late nineties, and then we have seen a decline since the late nineties, early 2000s. The time series down here in the dark lines and the circles, that is the Maine/New Hampshire Inshore Trawl Survey. That has only been conducted for the last seven years, so it is a short time series and it is pretty stable over the time.

Now I'd like to go to the Georges Bank landings. Georges Bank, we have seen it was pretty stable in the early period and recently we have seen quite the increase in landings until about 2005 and a little bit of a downturn, but it is still well above the long-term average. The majority of the landings in Georges Bank have been from the state of Massachusetts. Next in importance is Rhode Island and then New Hampshire.

For Georges Bank we don’t have good trap-use data from all the jurisdictions that have landings there due to lack of reporting or lack of consistency of reporting. Massachusetts has had consistent reporting over time so we're using that as basically a proxy of trap use on Georges Bank. We saw a bit of an increase into the early nineties, and it has been pretty flat, but we obviously don't know what has been happening for the trap use in New Hampshire and Rhode Island on Georges Bank.

Here again is the commercial size structure. We can see that the median size has been pretty steady for females during most of the time period until the last few years, and then it increased quite dramatically. Also, if you look at the top bounds of these bars, that is a 99 percentile of the lengths, and there again those were pretty steady until the last maybe five years, and we saw a real big increase in the 99 percentile, so your range is expanding, also for females. For males, again it was very steady until recently we had a slight increase in the median size, but you saw a big jump in the 99 percentile, like we see in the females.

For Georges Bank we only have two surveys actually one survey, two seasons. We have the Northeast Fishery Science Center and we utilized both the spring and the fall trawl surveys because we don't have any other fishery-independent information available. These two surveys, they're pretty bouncy but they track each other fairly well except for this one point in 2002 fall.

The Southern New England landings, you can track the increase through the late eighties, nineties, to peak in the late nineties and then a really steep decline. Right now we seem to be stable at low
levels. Rhode Island has the majority of the landings followed by New York and I think it's Massachusetts and then Connecticut or it is the other way around, and then NMFS, which is really New Jersey and south.

This graph shows the effort, the trap use, and this is information from New York, Massachusetts and Connecticut. Rhode Island didn't have consistent information on their trap use so that is not included. This information would be substantially smaller than the actual trap use since Rhode Island has the majority of the landings.

We do assume that this probably is very reflective of what went on since the landings' information from all four areas have been very consistent over time. Again, we see the ramping up of effort with the increase in landings and a peak in the late nineties and then a decline, and now pretty sort of stable low levels. These trap levels are about double what the levels were back in the early eighties.

We look at the commercial size structure in Southern New England, and it was pretty stable until the last five years, and then we have seen an increase in both the females and the males. If you look at the 99 percentile you see that we had larger animals early on in the time series and then that 99 percentile decreased for both the male and the female at the time when landings and abundance and effort were all increasing.

Recently, as we have seen our landings and effort decline, we also see an increase in the $99^{\text {th }}$ percentile. This was also during the period when we have had some additional management measures. We have had increases in size limits, instituted a maximum size, and we have also had some effort reductions going on in that time period.

These are the Southern New England Trawl Survey Indices that we utilized in the model. The Northeast Fishery Science Center is down here on the bottom with black squares. It is hard to see because of the scale, but there is a bit of an increase here in the nineties and then a decline again. If we look at the Rhode Island Fall, which is this one in the solid line, you see a general increase into the nineties, a peak, and then a decline, and you do see an increase in recent years. Connecticut is in the dashed line, and again you see this increase and then a decline.

Just briefly on assessment methods - Genny just told you in detail what we did - we used the University of Maine Statistical Length-Based Model. It uses a
wide range of length structure information. This model is capable of using three surveys simultaneously in the model. We try to capture the seasonality of the lobster fishery and life history.

We can also calculate the reference points inside the model. For continuity we used the Collie-Sissenwine Model also, which is that two-box model. It associates the landings with the survey, and they track very closely. It really uses a bridge between the two models. One of the things we incorporate is your conservation discards.

So this just shows as the lobsters get larger, you get your egg bearing and v-notch in the Gulf of Maine, so for these larger lobsters 70 percent are being thrown back. You have Southern New England is not quite as much and a little bit lower for Georges Bank. One thing we are recommending for this assessment is just a different description of abundance and fishing pressure.

In the past for abundance we have used full abundance, which is basically your legal-size abundance. What we are suggesting is to use this reference abundance, which is the number of lobsters 78 millimeters and greater on January $1^{\text {st }}$ and anybody who is going to recruit into that size bin during the year. That size was chosen because it is the bin that encompasses the lowest size limits that we have seen in all the stocks along the coast.

The reason for doing this is because of just the changing in the selectivity; and so if you're just using legal abundance over the time series of the assessment, that definition is changing as your size limits are changing; and adding v-notching and other management measures, that is changing your reference abundance.

And for effective exploitation we would like to use that instead of your full F, and the reasoning there is, again, you would be taking your annual catch and dividing it by the reference abundance to figure out what proportion of your population, but this would be a consistent population over the whole time series instead of a changing population.

Now I am going to talk about some of the results. The next few slides will be the Gulf of Maine. This slide shows the annual observed and predicted landings. The observed are the dots and the predicted are the solid lines. This is females, males and for both sexes, and you can see just the increase in the landings through the time series until about 2006, and
then you see a little bit of a decline in the last couple of years.

The next few slides we're going to look at how the predictions for the surveys fit the survey data. We can see for the Northeast Fishery Science Center the predictions shows this increase that was seen in the survey, but it is not capturing this decline. I think this is something that Genny was talking about before, that it has just seen an increase in the landings and an increase in lengths and it is not capturing that going down. For the Gulf of Maine, it is a short survey and it is pretty flat. The predictions fit the data fairly well.

This is the Massachusetts Fall Survey, and you can see it is a little bouncy, but the survey tends to decrease for the males and the females, and that is not being caught in the predicted survey information from the model. That is reflected in the larger standard deviation that we're seeing here.

This one is the prediction of the reference abundance, which is our 78-plus millimeter lobsters, and we're basically predicting an increase and just a slight decline in recent years, and you're seeing the increase in both the males and the females.
Your female stock biomass, this is broken out into the different seasons, and you can see where the lobsters molt. It is in the summer and the fall, so you're getting these new recruits in here. Again, it really is very reflective of the abundance, a little bit of downturn right at the beginning and then an increase and a recent decline.

The annual effective exploitation, on the other hand, is very flat throughout the time series. There is really no trend. You can see this is the estimated recruitment, and so that abundance is really supported through this increase in recruitment that was seen throughout the time series for the Gulf of Maine.

This is just a little comparison with the CollieSissenwine. In general you're seeing the CollieSissenwine declines in abundance and an increase in fishing mortality in the last few years. That is certainly quite different than we're seeing in the University of Maine Model. The Collie-Sissenwine also indicates that overfishing is occurring in recent years.

Now I am going to go on to the Georges Bank Model. This one was run a little differently than the Gulf of Maine and the Southern New England. For Georges Bank we tried modeling it the same way and
it just wasn't successful because we're seeing different trends in the males and the females, and the model just wasn't able to deal with those two different trends.

We ended up combining the sexes for doing a sexescombined model. We used the commercial lengths without gap fillings. We only used that information that had a good enough sample size for Georges Bank. The nice thing about the University of Maine Model is it can deal with missing data, and that is something that the Collie-Sissenwine Model has a problem if you have missing data.

We used commercial landings in weight instead of numbers. The reasoning there is that you really needed a lot of bio-sample information to be able to convert it from weight to numbers, and we didn't have adequate samples. For Georges Bank we ended up leaving the landings in weight. We utilized both the spring and the fall trawl surveys from the Northeast Fishery Science Center.

Here the model covered the years '82 to 2008. Because we're using the spring survey, we actually had 2008 information and we put it in there just to help ground the final terminal year, the 2000 terminal year and try to get a little better estimate of that year less variance. We were not able to do that in the other two stock areas because we only utilized the fall trawl survey, and that was not available.

Here are the landings predicted and observed landings. The model fit the observed data very well, and basically we're seeing low landings during most of the time series and then quite a big increase in recent years and a little bit of the downturn. This shows the model fits to the survey data. The spring is on the left; the fall is on the right.

The model fit the spring survey data very well. It also fit the spring lengths, the fall lengths and the commercial lengths very well, but it did it by basically sacrificing this fit to the fall data. It really did not fit decline here in the fall. It is showing that there is a big increase. This is the predicted abundance and we saw a slight increase until that 2001-2002 and then a huge jump and then a decline in recent years.

This is the spawning biomass showing the same shape as the abundance. Effective exploitation, here are both sexes, the fall on the bottom. These are winter, spring, summer, fall. You saw generally a decline until recent years, and then we're seeing a bit
of an upswing in the exploitation in recent years, but it is still at pretty low levels.

Recruitment has been pretty variable over the time series. So results over the last six to ten years, looking at the Collie-Sissenwine Model, it predicts that abundance has declined to a time series average since 2003 and that in recent years $F$ has increased to levels above the time series average. Now the CollieSissenwine Model is only using that fall survey. It is not using the spring survey. It is also not using any of the length information.

It is showing the same patterns except it is showing that the Collie-Sissenwine predicts that overfishing is actually occurring. The big difference also with this model is the University of Maine Model is using the sexes combined while the Collie-Sissenwine Model did for each sex separately. Now on to the Southern New England, and this is the observed in annual landings. In general the model is predicting the observed landings very well. It is missing a little bit this peak, but it is showing that increase and the decline.

Next we're going to go through the three surveys. In general all three surveys you're seeing the model is fitting the increase and then the decline, but it is not reaching this peak that we're seeing in the surveys. Another thing is the model is not seeing the continued decline in the Connecticut Survey. It is predicting a bit of an increase here in the last couple of years.

You can see with the Northeast Fishery Science Center there is a bit of an increase there. Connecticut the survey still goes down, the model is predicting it goes up, and go on to the next, which is Rhode Island, and Rhode Island you see increase, decline, but it comes back up again. The model is seeing from two out of the three surveys a bit of an increase here.

Reference abundance, again we see increase through the eighties to a peak and then a decline and to level out and maybe a little bit of an upswing in recent years. Spawning stock biomass showing the same thing. Annual effective exploitation, that was pretty flat through the eighties, a bit of an increase in the nineties as the stock went up and effort went up, and then we saw a decrease in effective exploitation starting about 2002.

This is the estimated recruitment and you see that increase in abundance was supported by this increase in recruitment and then the decline which is the
bottom out of the recruitment, and we're seeing a bit of an upswing in recent years. Another interesting thing, like I pointed out before with the commercial length samples, the model is seeing that back in the early part of the time series we had a much higher proportion of catch that was greater or equal to 98 millimeters.

As the abundance went up and the landings and effort went up, the proportion of large animals decreased, and then in recent years it has gone back up again while the effort abundance landings have declined and also, as I mentioned, we have put in further management restrictions on the stock.

As far as the Collie-Sissenwine results, it pretty much matches what we're seeing in the University of Maine, so all two models and the stock indicators suggest that abundance, SSB and recruitment are at low levels, and the stock has really not rebuilt since the last assessment and is in poor condition. I want to talk about just some of the status indicators. They generally have the same results as the models, and I wanted to point out a few that don't fit in with what the model is telling us.

For Gulf of Maine effort levels in recent years are the highest observed since 1982. Georges Bank, the sex ratio of the population is skewed towards females for some unknown reason, and this question of could there be some problems with sperm limitations in the future if this continues.

In Southern New England, though, most of the indicators are neutral or negative. Median length and unadjusted price per pound are about the only positive indicators we're seeing for the stock. I am just going to go into detail on just a couple of the indicators that the technical committee believes are important that we keep an eye on in between stock assessments.

One would be our recruit abundance. For the Gulf of Maine we see that in recent years generally in decent condition, though we have a few concern areas, but most of it is green which is good, or yellow which is neutral. Also our recruitment indices, which are your larval and your young-of-the-year indices, those are all looking very good right now for the Gulf of Maine.

Another indicator we think is important to look at is some of our effort indicators, and so for the Gulf of Maine, as I mentioned before, the number of traps have really gone up, and it is the highest level of the time series and it has been for a number of years.

The gross catch per effort, which is basically your landings divided by the number of traps, currently that is doing very well because the population is up, abundance is up, but if abundance really takes a downturn - and we're starting to see a little bit when we're looking at the predicted abundance - that may be one of the first indicators that something is going on because we do have a lot of effort out there.

For Georges Bank, just in general the spawning stock biomass, a positive, but recruit abundance was negative, and there is no recruitment indicator for Georges Bank so we're not going to see a number of years before what will be coming down the pike. Sex ratio is neutral but that is generally because the proportion of females has been pretty high in the past because currently 86 percent of the observed out there are females.

Effort levels are neutral but are based only on Massachusetts and may not actually reflect the true levels of effort. Currently gross CPUE is positive. Southern New England, currently spawning stock biomass, recruit and recruitment indicators are all neutral to negative, and we think that is important to keep an eye on. Are we going to start seeing some recruitment coming into the stock?

Effort levels in recent years are neutral but they're still double what was recorded from '81 to '83, a period that had similar landings, but currently the landings are comparable to the totals in the late 1980s. The gross catch per effort has been negative since the 1999 die-off. Briefly about reference point history; prior to the 2006 assessment we utilized F 10 percent calculated from the life history model to develop our reference points.

The 2004 model review and the 2006 peer review raised some concerns. Some of that was that we may not want to be using reference points that are not generated from the assessment model, that they might not be basically on the same scale. Also, there is concern that the reference points that were being calculated from the life history models didn't seem realistic when recruitment was consistently high, and which it still is in the Gulf of Maine.

In 2006 we adopted qualitative median trend-based reference points. Our current reference point definition is the median abundance and median fishing mortality computed from the fixed years 1982 to 2003 for the Gulf of Maine and Georges Bank and 1984 to 2003 for Southern New England. The target is one standard error from the threshold. It is above the abundance and below the F threshold. The stock
status, you compare the average F from the last three years with these thresholds.

This table shows the stock status in relation to reference points from the 2006 Collie-Sissenwine Model and this current turn-the-crank update. If we look down here in abundance, what we're calculating in 2009 is the same as 2006. For the Gulf of Maine and Georges Bank our current abundance is above the threshold and above the target, and that is still what we're calculating. For Southern New England it is below both the target and the threshold.

When we look at fishing mortality, though, we see a little bit of a different picture. In the 2003 assessment it found that the Gulf of Maine and Georges Bank, that fishing mortality was below the threshold and the target, while the current assessment, the Collie-Sissenwine Model, found that the current fishing mortality was actually above the threshold and the target. For Southern New England it stayed the same.

The TC is recommending revised reference points. They're basically the same as the trend-based reference points that we adopted from the last assessment, but instead of using instantaneous fishing mortality we recommend that we use effective exploitation; and instead of using the recruited legal abundance we use the reference abundance, 78 millimeters and above.

If you look at the University of Maine reference points, the current exploitation we find that for Gulf of Maine, Georges Bank and Southern New England the exploitation is below the median. And if we look at the reference abundance, we find for Gulf of Maine and Georges Bank we are above the abundance threshold, but we're not for Southern New England.

Now the University of Maine Model, we also calculated some biological reference points. So when we looked at the exploitation at a fishing mortality of F 10 percent, we find that for Gulf of Maine and Georges Bank the stock is not below the F 10 percent level. Southern New England, the range of exploitation we were looking at, we could not calculate the F 10 percent. We looked at F 20 percent and for all three stocks exploitation was not below the F 20 percent, so in those cases that would be triggering our biological reference points.

We will briefly talk about the stock status. For the Gulf of Maine, using the revised recommended reference points, the Gulf of Maine stock is not
depleted and overfishing is not occurring. Model estimates and stock indicators suggest abundance, spawning stock, biomass and recruitment are high and presently the stock appears healthy.

Effective exploitation is likely at or near the longterm median. Record high landings have been supported by a long period of excellent recruitment. Effort levels in recent years are the highest observed since 1982. Statistical Area 514, which is Massachusetts Bay, has continued to experience declines in recruitment and abundance.

Only 12 percent of the population is mature at the minimum legal size in the Gulf of Maine. Potential decline in abundance offshore, the trends of the Northeast Fisheries Science Center Fall Survey are actually what is going on in the Gulf of Maine. The Collie-Sissenwine Model indicates Gulf of Maine stock is declining and fishing mortality is increasing in recent years, but for the Gulf of Maine CollieSissenwine is only using the Northeast Fisheries Science Center Fall Survey and the Massachusetts Fall Survey.

As we look at the maturity here, the Gulf of Maine is in green, and at 83 millimeters they're 12 percent mature, so at the legal size most of your females are not mature. For Georges Bank the stock is not depleted and overfishing is not occurring. Model estimates and stock indicators suggest abundance of spawning stock biomass are high and presently the stock appears healthy.

Sex ratio is 80 percent female from 2005 to 2007 for unknown reasons. And as I mentioned, if sperm is limited future recruitment failure could be possible. Only 7 percent are mature at minimum legal size. Lack of adequate sea and port sample data may be hindering the ability to estimate numbers landed length structure and sex ratio of the catch.

Recent fall and spring surveys conflict; and if the fall survey is correct, stock levels may be lower than we think. The Collie-Sissenwine Model indicates overfishing is occurring. Landings in pounds have doubled since 2005 and may not be sustainable. Again, the maturity for Georges Bank is even at lower level at legal size.

Southern New England is depleted but overfishing is not occurring. Both the University of Maine and the Collie-Sissenwine Model estimates and stock indicators suggest abundance, spawning stock biomass and recruitment are at low levels. Since the
last assessment the stock has not rebuilt and poor conditions continue.

The estimated recent upturn in abundance and spawning stock biomass may be due to the Rhode Island V-notch Program. Positive sex may be shortlived since the program has ended. Long-term stockwide v-notch program may be necessary to boost recruitment and allow the stock to rebuild. Most fishery performance indicators are negative or neutral in recent years. Again, the trap numbers, though they have declined, they're still higher than levels when the stock abundance was at similar levels.

And research recommendations; as Genny mentioned before, growth is really critical to the University of Maine Model. We really think that we need more research in developing reliable sex-specific estimates of molt frequency and molt increments for each stock. This would likely contribute to the ability to develop plausible reference points.

Number two, we think the Ventless Trap Survey should be funded and continued. We need a standardized coast-wide fisheries-independent survey that is designed to target lobsters. Third, we feel that enhanced fishery-dependent sampling is really important to continue. We need more biological sampling, either port or sea sampling, especially in offshore areas like offshore Gulf of Maine, Georges Bank and Southern New England canyons. That's it.

## DISCUSSION OF STOCK ASSESSMENT

CHAIRMAN CULHANE: Okay, thank you, Kim. Does anybody have any questions on the stock assessment? Bill.

MR. WILLIAM A. ADLER: A couple of slides back on the Georges Bank, you indicated that 7 percent were mature at minimum size?

MS. McKOWN: Yes.

MR. ADLER: What was the minimum size at that point?

MS. McKOWN: 3-3/8.

MR. ADLER: At 3-3/8 and they have gone up since, but $3-3 / 8$ and only 7 percent were mature?

MS. McKOWN: Mature, yes, from the data that we have. Now the data is older data, and that would be
very good to update some of the maturity information.

MR. ADLER: Because the smaller size in the Gulf of Maine was at 12 percent -

MS. McKOWN: Yes.
MR. ADLER: -- and the bigger size in Georges Bank was at a smaller percent. That just doesn't seem to be right. Thank you.

MS. McKOWN: They're different maturity curves but also most of the Georges Bank population is in offshore waters, which tends to be colder. Most of the Gulf of Maine information and population is in the inshore waters, and the warmer temperature increases the maturity rate. They become mature at younger sizes.

MR. ADLER: And if I may, Mr. Chairman, and in the Southern New England, the last thing I heard was that most of them at that age down there were sexually mature at the minimum size; do you still agree with that?

MS. McKOWN: That's true, yes.
MR. PATTEN D. WHITE: There were two areas in this that referred to the legal minimum size as 3-1/4 inches in the offshore fishery, Kim, just as a point of interest. On the Georges Bank trap numbers why is that I think you said only Massachusetts had the right numbers? In a lot of the presentations that we have had from the Offshore Lobsterman's Association, et cetera, the numbers seemed to be pretty explicit in how they were coming about with their reduction numbers and everything else, and it seemed that they had those numbers pretty well under control, but evidently they don't?

MS. McKOWN: What I was presenting was the number of traps that were reported by the fishermen actually being fished. It wasn't the allocations or the number of trap tags ordered. It was actually the numbers reported being fished. In that data there were some problems with continuity in the time series for Rhode Island and New Hampshire.

MR. P. WHITE: And to that point, Mr. Chairman, if I might, I think the numbers that you had reflected for the state of Maine reflected the number of trap tags and not the number of traps fished.

MS. McKOWN: Okay.

MR. P. WHITE: And one last question, if I might; in the report something you didn't bring up, the panel believes the level of discard mortality could be high. I had never heard that in the Lobster Fishery, and what was that based on, if you could enlighten us on that, on Page 2?

DR. TOM MILLER: My name is Tom Miller. I was on the review panel. That comment came about not because we believed that there was a direct mortality in the pot, but that there could well be an associated release mortality if the lobster is not back in preferred habitat immediately they are released back into the water. We were surprised by a complete lack of information on release mortality in the report, and so that comment reflects I think that it could be higher than is anticipated.

MR. P. WHITE: If I might follow up on that - I don't know, maybe Bill Adler could help me - there was a study that was done on that which you might not be privy to because it was old. I don't remember the date, Bill, but there was a study done on that that was less than $4 / 10$ of a percent or something mortality on released lobsters.

MR. ADLER: The only thing I can think of is the striped bass are eating them as soon as they throw them over, and that is mortality. Normally if they were not released on the bottom through the escape vents and they were thrown over, normally they're very resilient and will be down there, except, of course, if they run into the mouth of a striped bass, which people have said that they're following they're actually following some of the boats. That's the only thing I can think of because normally discard mortality is really not an issue other than something like that.

MR. G. RITCHIE WHITE: It seemed like the two models did not line up until Southern New England and then they did line up. Do you have any sense of why all of a sudden they seemed to work when they weren't working in the other two areas?

MS. McKOWN: This is something that Genny I think touched a bit in her presentation. For Southern New England the two models actually used the same surveys, the Fall Northeast Fisheries Science Center, Connecticut and Rhode Island surveys. All three of them, as you saw, were seeing pretty much the same picture.

The population went up, the population crashed, a little bit of difference the last couple of years, but that was pretty minor in the scale of the change. For the

Gulf of Maine the University of Maine Model used the Northeast Fisheries Science Center Fall, Massachusetts Fall and also the Maine Fall. The Maine was a short time series, but it showed - you know, it just tracked pretty flat.

Also, the University of Maine Model includes the length information. Length information, especially offshore in the Gulf of Maine, we saw an increase in the number of large lobsters out there. I think, as Genny was saying, the model says if we have large lobsters they had to survive, so you can't have that high fishing mortality to have a buildup of large lobsters. So it is trying to take the information from Maine flat, large lobsters, and other two going down.

The Collie-Sissenwine Model, it took the Massachusetts data, the trawl survey, and basically the landings from the same area that the trawl survey occurred and it ran the model for that. That lined up both ways; the trawl survey went down, the landings went down, and said things are not good. It took all the rest of the landings' data and it applied it to the Northeast Fisheries Science Center and the fall and that one showed a bit of a decline also, and so it is saying landings are going up, but we see the stock seems to be going down a bit.

It doesn't have any length information to say, well, they're still getting more large lobsters, so it is saying, whoa, obviously, F is going up. For Georges Bank the Collie-Sissenwine Model only used the fall trawl survey and that had a bit of a decline, and we saw landings went up. So again it is saying landings are going up, the trawl is going down, we're overfishing.

The other model used both the spring and the fall. The spring was a little better than the fall and didn't have quite the downturn. It also saw all these large lobsters and it said we can't have all these large lobsters and the stock crashing. So that is the disconnect between the two models.

MR. R. WHITE: Followup? So if we had had the Maine Model 15 years ago, we might not have needed a gauge increase?

MS. McKOWN: You can’t tell.

CHAIRMAN CULHANE: Toni has a correction to make.

MS. TONI KERNS: I apologize, 89 millimeters is 3 1/2 inches and not 3-3/8.

MR. DAVID SIMPSON: That was a good presentation, Kim, thanks. A couple of things; one of them just came up and is the point Genny made that sometimes you get this mismatch between survey indices and landings and predicted trends and stock size. I made a note when you were talking about the Southern New England Stock Area and the Long Island Sound Trawl Survey showing a continuing decline in the recent few years, and yet the overall population estimate seems to be increasing, then.

I think that is an example of a local survey reflecting local abundance because our landings on Long Island Sound follow the exact same trend throughout the time series that the trawl survey does. I think it is simply, you know, when you look at the larger stock area it is doing better in the last few years than Long Island Sound is.

The questions and comments I had have to do with the comments about the skewed sex ratio, especially it is most extreme on Georges Bank, but it is kind of a puzzle to me, too, for Long Island Sound, the data that I'm most familiar with, and I guess it is related also to the comments about size composition, increase in size composition in the last - you know, breadth of the size composition in the last few years.

To what extent are those - are they fisheryindependent estimates? I am curious that it appears to me, from looking at data, that lobster pots select for females disproportionately. Since there are more conservation measures on females through egg-bearer protection and v-notch programs where they exist, you would think that female abundance would be much higher and the proportion harvested would be lower, but it doesn't always seem to be that way. I will point out and I am just curious about your response to it.

And the same thing for size composition; when I saw Georges Bank, the increase in the size composition so abruptly to my eye in the last few years, the first thing I thought is they found a new honey hole. You know, there is new fishing effort out there, you know, fishermen have been displaced from all kinds of fisheries.

You can watch them on TV; now they fish on Georges Bank. You know, it is the second deadliest catch or something. But, seriously, that would be one explanation if the landings’ data were feeding into that, so I am curious about your reaction to that. Certainly, in Long Island Sound we have seen some encouraging signs of larger - what is left has a higher proportion of larger lobsters. I've thrown a lot at
you, but if you can just give a reaction to the sex ratio, especially, but also the length composition and how fishery-independent versus dependent plays into that.

MS. McKOWN: One thing that Bob Glenn from Massachusetts has found - and when I have looked at some of our data it seems to support it - is as move away from the coast and more into estuaries, you get a higher proportion of males; a higher proportion of females as you're out near the ocean.

MR. SIMPSON: In the population?
MS. McKOWN: In the population. When I have looked at some of the ventless data from Long Island Sound, even though we don't have a lot of sites, it does seem reflective of that, too. As far as the sex ratio on Georges Bank, in one area we have very consistent sea sampling, Area 521; and when we looked at that over time, we saw that same increase in the sex ratio from a place that they have been sea sampling for years.

I think it is more of an actual change on the Bank than just a change in where they're fishing. You know, I do agree with you there are places; you know, lobstermen show us if we go here it is all going to be females with eggs and we go here and so, yes, that is true. What was your other question?

MR. SIMPSON: Size composition.
MS. McKOWN: As far as the size composition, what I showed you was from the commercial landings, but we have seen in our Western Long Island Trap Survey, especially in the very west where we have very little effort going on, we're seeing really much larger lobsters there, so we are seeing a few lobsters but a lot of them.

MR. DAN McKIERNAN: Just to follow up, you had mentioned the buildup of large lobsters in the Offshore Gulf of Maine; was that a buildup of females, mostly?

MS. McKOWN: We have seen larger females - no, I would have to look. I don't know if it is females both.

MR. McKIERNAN: Okay. I guess I am suspicious or expecting that with all of the nearshore fishery measures to protect females, as David mentioned, with v-notching and just sort of the overall fishermen's ethic now about protecting egg-bearing females, we all know the larger the lobster the further
they walk, and so it didn't surprise me that the offshore catches are dominated by females, but I did have a concern.

One of the recommendation measures for Southern New England was to maybe reinstitute a v-notch program down there. Wouldn't we introduce the same sperm limitation problems because just about every female, as Bill mentioned, in Southern New England is mature at minimum size; so if we unleashed lobstermen with their v-notch tools we might have a complete male fishery.

MS. McKOWN: When we looked at the sex ratio in Southern New England we did not see a preponderance of females. About 60 percent are females, but it is not like 80 or 90 percent that we're seeing in Georges Bank.

MR. McKIERNAN: And do you have any comments on why my Area 514 continues to suffer low levels of abundance?

MS. McKOWN: No. Well, that is something that the peer review panel - that Tom is going to get into - has suggested to look at where is that recruitment coming from that seems to be sustaining the Gulf of Maine Fishery, and that recruitment may not be getting down to 514 .

MR. PETER HIMCHAK: Kim, could you comment on the utility of the New Jersey Trawl Survey in the assessment of the Southern New England Stock. We have a 20 -year fishery-independent survey, and I didn't see any mention of it in your presentation.

MS. McKOWN: We looked at your survey data. Your trends are pretty much on line with the rest of the trends in Southern New England. When we looked at the length information, there are so few positive tows, tows that actually caught lobsters, that there wasn't a lot of length information. Currently how the University of Maine Model is programmed, we can only put in three surveys, so we chose to go with those surveys that had more information, but that was the only reason. Otherwise, we would have considered it.

DR. STEWART: Kim, I have just a couple of comments to reference where we stand in Connecticut and our interests in Southern New England. The fishermen have strongly fought for specific management units, and we have been able to somewhat prevail in getting Area 6 as kind of a unique recognized geographically contained and hydrographically contained lobster population basin.

I would just offer a comment that it is good see that like the Gulf of Maine is identifying several subpopulations of the lobster stock that have probably very unique characteristics, differences in size at maturity, definitely behavioral trends in migration that are different, different thermal preferences.

We have the same thing, I might suggest, in Southern New England where the inshore Rhode Island Sound Stock is somewhat unique than our offshore stocks that come east and west for migration are somewhat separate. There is a whole series of tagging studies that I would suggest or hope the assessment group would be able to reflect in their reports that identify this.

MS. McKOWN: Well, the assessment group did look at the tagging information that was out there at their last assessment and looked at other biological information, the size at maturity, size structure, and we felt that Long Island Sound certainly was much more similar to the rest of Southern New England than offshore was to Georges Bank. Georges Bank seemed like a very unique situation. There is some evidence of some movement between the Long Island Sound population and offshore.

DR. STEWART: Okay, and I know we did some of the tagging studies of less than 10 percent. Just one last question; as we have had over the last ten years this extreme mass mortality in Western Long Island Sound that I know you're fully familiar with, did the assessment group do any special treatment?

I look at all the models that have a constant 0.15 mortality throughout the Gulf of Maine to the Southern New England Range. It just seems like a catchall mortality. As a benthic biologist, I can see some very important work in differential predation or natural mortality values to be generated, and I wondered if the committee looked at like a case run for the disaster in Long Island Sound and just followed the models through that.

MS. McKOWN: Well, first off, as you saw when you looked at all the different indices, they all show that increase and that decline so it was not unique to Long Island Sound. Your other point, yes, we did look at different natural mortality rates particularly in Southern New England. We increased it by 25 percent and then we basically, what, 50 percent and 100 percent, 50 and 100 percent, and to be honest the one with the 50 percent model fit the data a little bit better than using 0.15 . But, the results were the same whether we went with 0.15 or with the higher natural
mortality. We did explore that and that is something that I think we would want to continue to explore.

MR. ADLER: Mr. Chairman, three little notes here. First of all, somewhere in the 2,000-page document I was reading - it seemed like 2,000 - it mentioned the ventless trap survey in Massachusetts, but it didn't have very many statistics on that particular section. I know that from some of the sampling that had been done with ventless traps, they have a program up there in Massachusetts Bay where the comments had been, you know, the ventless traps, they come up, they're chock a bock full of lobsters, which means they're not getting in the traps down there, regular traps because they go through, but they're there.

Everybody was buoyed by the idea that there are a lot of lobsters running around there. This is in 514, by the way. So, I would like you, when you get the chance, to relook at the ventless trap surveys and check perhaps with Bob Glenn again on that because the reports I've been getting from the fishermen who are taking these guys out is that there are a lot of lobsters there. It is in the inner part of 514. That's one point.

The second thing, one of the things that is happening in Massachusetts is that there is less lobstering going on for various reasons, economic reasons. A lot of the fishermen aren't going out as much, so if you're looking at landings that could go down because there are less guys fishing, too, and not necessarily less lobsters.

MS. McKOWN: That's a good point.
MR. ADLER: And the last comment, and I think you mentioned it before, the Collie-Sissenwine Model; did you say that it doesn't take into as much account as what is taken in in the University of Maine when it assembles all its information? I am concerned because they have come up with two different things; you're not overfished, you are overfished. So you said the Collie-Sissenwine Model doesn't throw all the stuff into the mixer as the University of Maine; am I correct?

MS. McKOWN: Any length information is not included into the Collie-Sissenwine Model. How it was run for the Gulf of Maine, only two surveys were used, the Northeast Fisheries Science Center and the Massachusetts. The reason is the way CollieSissenwine is programmed currently it can't take basically no information; so because Maine is so short and is too short of a time series, the trawl
survey, to do an assessment and it is only doing one survey with associated landings.

The seven years is too short so it can't run a model on that so we just took all the landings except for what was occurring basically in Massachusetts Bay and applied it to the Northeast Fisheries Science Center and ran it. It didn't include lengths, so we did have different answers and it is reasonable considering what information it was looking at compared to the -

MR. ADLER: So it is a little bit skewed, a little bit?
MS. McKOWN: Yes, it is different.
CHAIRMAN CULHANE: Well, thank you, Kim. We have a peer review panel advisory report, and Dr. Tom Miller will be handling that for us.

## PEER REVIEW PANEL

## ADVISORY REPORT

DR. MILLER: Good afternoon, ladies and gentlemen. I am here to present the peer review report for the 2009 Lobster Assessment. The peer review panel was composed of four members. It was chaired by Mike Sigler from the National Marine Fisheries Labs, Alaska Fisheries Science Center. He sends his apologies but considering the distance he would have to travel compared to the hour I had to drive today, we thought the carbon footprint of this meeting would be much smaller if I took the lead in the presentation.

Mike participated in the review of the 2006 Lobster Assessment so there was some sort of corporate knowledge that he brought along. Also on the panel was Bob Muller from Florida Fish and Wildlife Commission. He participated in the previous assessment in 2003 and so had additional sort of corporate information. Chihong Fu from the Fisheries and Oceans, Canada, is an invertebrate assessment specialist, and I brought information or expertise in crustacean assessments in general.

The general conclusion of the review panel were that the review team had pulled together all of the relevant data; that the assessment generally represents the best available science - we had some changes that we would recommend that I will highlight as we go through - and that it provides foundation for management.

In this forum I would just like to congratulate the assessment team on the work that they did. It was a
really substantial piece of work they had to put together to implement the University of Maine Length-Based Model, and they should be congratulated for the work they conducted. As you heard in the presentations, both Genny's overview of the assessment models and Kim's presentation of the assessment, there were these two models that were brought forward in the assessment.

The more rigorous statistical catch-at-length model developed by the University of Maine the panel felt was both rigorous and reliable. The advantage of it is that it does not require a full dataset, so it can allow for missing observations, and that's one of the principal advantages. That means that the model estimates the missing data and the data are only smoothed once, and I will make a comparison to that when we talk about the Collie-Sissenwine Model.

But central to this model is the growth estimation, and that was one area where the assessment will need to be improved in the future. There are tradeoffs in how you estimate growth, and the tradeoff is with what you assume the mortality rate is and therefore what you see in the abundance rate. So the quality of this length-based assessment bears heavily on the quality that you believe the growth information in the assessment has.

That's compared, then, to this Collie-Sissenwine Model, which as you heard is a much more simple two-size class model. We believe that it continues to provide useful information. The current version that was implemented in the Lobster Assessment, which is derived from the Woods Hole Fishery Toolbox, requires a full dataset. Every area, every year has to have observations.

So to fill the dataset out, the assessment team used statistical interpolation methods to estimate those missing observations. Those once smoothed data are now put into a model that smoothes them one step further, so there are two stages of smoothing in this Collie-Sissenwine Model, and therefore it is probably less capable of reflecting abrupt changes in the stock.

We did note, however, that there are options in the general framework of the Collie-Sissenwine Model to remove this requirement for a full dataset, and we certainly recommend that in future assessments this revised Collie-Sissenwine Model is used. We do not view the Collie-Sissenwine as a bridge to the Length-of-Maine Model. We certainly would not recommend that only the University of Maine Length-Based Model is used in future assessments.

The trend in assessments is to try and use multiple models to reassure yourself that the information you're getting from one is corroborated by a second, and so we would encourage the assessment team to continue the use and the presentation of both models even though it may at some times present the management community with a conundrum of which one do I believe. We think having that conundrum is better than being given one model and being forced to believe the one you have been given.

The central area of disagreement between the review panel and the assessment team was in the area of reference points. The assessment team brought forward a change in the way that they developed reference points. The review panel accepted the use of the reference abundance that you saw, and the review panel also accepted the use of this effective exploitation fraction, both of which we felt were very reliable and defensible approaches.

The assessment team brought forward median values as thresholds. Now if you think about what a median value is, it is the value for which half of your observations are less than that and half of it are greater. If you're trying to use that as a limit, the expectation is that half the time you're going to below it. That doesn't seem to make any sense to us as a limit; something you want to avoid.

So we recommended a change in the reference points that in fact the median value used as a target. That seems to be what the fishery has been operating at. As you saw particularly for the Gulf of Maine, it has been at the median exploitation rate for 30 or 40 years, perhaps, with no apparent change.

If you used that median as a limit you would be putting yourself in a position of having to make abrupt changes in management perhaps just based upon natural variation or expected levels of variation in those values. We recommended that the median value of biomass be used as a target; and following the idea of msy and half msy as the limit in assessments, we would recommend that half the median value be used as the biomass limit reference point.

Similar arguments apply with the exploitation fraction and so we recommended the median exploitation fraction as a target, and in fact in this case a $90^{\text {th }}$ percentile of the exploitation fraction distribution as your limit; that is, you would get some indication of very extreme exploitation rates that are expected to be rare; and if you find a current
exploitation rate in that extreme range, it should be appropriate warning signal.

However, we caution that in accepting those reference points these are empirically derived, and there is nothing in these reference points that suggests that they are sustainable over the long term other than by our experience or that they are in any way optimal or maximal, and so at some point management of this fishery has to begin to think about issues of what is the optimum yield in this fishery.

Using our reference point definitions, we went back through the three stocks, and you will see that our definitions really don't change the understanding of stock dynamics greatly. The Gulf of Maine stock, as you heard, has been at median abundance and median exploitation rates for a considerable period of time, and we would conclude the stock is not depleted and neither is overfishing occurring.

For the Georges Bank stock, similar conclusions, the stock appears to be somewhat stable with biomass above the target threshold and exploitation below the 22-year median, and again we would conclude that the stock is not depleted and is not experiencing overfishing.

For Southern New England there are some differences from this stock to the other two. Clearly, the stock is at a lower biomass than it has supported in the past, but exploitation rates appear to be at about median levels. This pattern of low biomass seems to be relatively well established at this point.

The review panel's conclusion on this was that the lobster stock has been declining and is in fact near its empirically determined biomass limit, so it is near the depleted limit but overfishing is not occurring. It would appear to the review panel that this stock is in need of rebuilding. This is the summary of those points showing in fact that the exploitation targets are not exceeding the exploitation targets nor are we in problem with the biomass thresholds either. So, what is the central challenge that you face in managing, and it really is this.

If we use biologically based reference points that are derived from the assessment or that are derived from life history analyses, these reference points would be substantially lower than these empirically derived reference points that we have recommended. The question is what accounts for this mismatch?

Is it that these biologically based reference points, spawner-per-recruit reference points are wrong? We could find no evidence that they were wrong. Is it that the current estimates from the assessment model are wrong? As you saw from the fit of the model to the data, the fits are reasonably good, and so there is no evidence in the assessment that the model is giving us erroneous estimates.

So, that comes down to this question of what is it about the biology and the ecology of lobster that make it so apparently resilient that it is able to support exploitation rates of 45 percent or so in the Gulf of Maine for many years at considerable higher level than the spawner potential ratios and reasonable spawner potential ratios that would be calculated either from the model or from the life history analysis?

How do you deal with that uncertainty? I think our recommendation would be the first thing that would be required would be some evaluation of what kind of risk you're taking on by assuming that things are going to stay in the status quo condition, and that can be done by an analysis quota-management strategy evaluation which allows the uncertainty in all of the estimates to be fully explored and incorporated and would give you some idea of the kind of risk you might be taking on by assuming status quo conditions will be maintained.

Given that concern that there is some risk in assuming status quo conditions are going to be maintained, the review panel felt that it is essential that recruitment be monitored closely because that is where you're going to get your first indication of problems, if there are any. You are not going to find indications of problems in the size structure. As you saw, the median values of those size-structured plots were pretty well constant over the entire time series.

You're going to get indications at the extremes of those size structures, so you're going to get indication of problems in the fishery by a reduction in recruitment by the reduction in the abundance of small-sized lobsters. We would recommend that the management board remain particularly vigilant about recruitment indices; and if you want to focus on indicators from the assessment report in the annual update, that it is recruitment indices that you pay attention to.

Data collection, you can't review an assessment nor it seems you conduct an assessment without recommending more data, please, and we would echo that recommendation. The data situation had
improved considerably between the 2006 and 2009 assessment, and we applaud the efforts that were invested in collecting that additional data.

We believe those should be maintained and where possible efforts to standardize data collection procedures between the states. Dealer reporting we believe should be expanded. The biological characteristics of the catch, if you're going to use a length-based model, it requires information on the biological characteristics of the catch.

Those characteristics should be developed from a statistically designed rigorous sampling program; not an ad hoc sampling of some lobsters that happen to be there where an agent walks past. With regard to fishery-independent data, these recommendations, again, reflect our concern over recruitment levels and focus on the need to develop recruitment indices for all stocks. You heard that in particular there is no recruitment index for the Georges Bank stock, and so you have no early warning signal for that stock at the moment, and that's certainly a concern.

We were particularly impressed by the information coming from the ventless trap surveys, and you have already heard some of the discussion about those surveys in the previous presentations. The other area of concern for us was the growth model used in the assessment. It is not that we did not believe the growth model did not represent - or it is not that we believe the growth model did not represent the best available information.

Our concern was that the assessment model assumed the growth was fixed for all regions and constant over time. Those assumptions mean that the uncertainty that is multiplied through the model is minimized, and so one of the things we would recommend is what is called a "resampling technique" to allow that uncertainty to be more fully investigated in the model.

We would recommend also that additional efforts be invested into try and improve our understanding not only of mean growth rates but of variation in growth rates, and we gave some ideas of how such data could be collected from existing surveys and existing datasets, including tag-and-recapture datasets that are conducted by various agencies both in the northeast and north of the border in Canada.

We also believe that some exploration of the role of changes in environmental conditions need to be incorporated; that growth does respond to environment whether it is absolute change in
environment such as temperature or whether it is physiological stress that might be caused by disease. Those sorts of factors or the impact of those sorts of factors in the growth matrix needs to be evaluated.

We also think that as this model matures it should be possible to estimate the natural mortality rate within the model at the same time growth is estimated. That was probably a step too far in this first version of the model, but as the assessment team becomes more familiar and more confident in the model behavior we do believe that $M$ and $G$ can be estimated simultaneously.

Uncertainty; we are all being asked to focus more and more on uncertainty and to account for both scientific and management uncertainty in our guidance. We felt in large part because of the assumption of constant fixed growth the current model underestimates the uncertainty in the status of the stock, and that bears on your understanding of how much risk you are taking on by allowing conditions to remain as they are.

So we felt that considerable work needs to be done in fully evaluating the uncertainty in the predictions that the models make, and that, as I said, can be done through this resampling technique. That really does give you a much richer idea of how uncertainty promulgates through the model.

Then the other area of uncertainty that was not addressed in this last assessment - and, again, is it not really critical of the assessment team. They had a big enough task in front of them with what they did achieve. Stock-and-recruitment relationships were really not evaluated in this assessment and they need to be evaluated to give you some idea, again, of the uncertainty in the future status of the stock, and we provided several recommendations for how those analyses could be conducted.

Reference points - and again I want to bring back these points - these are empirically based reference points that we're recommending. They have no connection to necessarily sustainability or any idea of optimum performance of this fishery, and so that is a significant weakness in the assessment and should be addressed by the time the next assessment is completed. We recommend strongly that reference points be given a sound biological foundation so you can have some confidence in terms of long-term sustainability. That concludes the report. Thank you.

CHAIRMAN CULHANE: Thank you, Dr. Miller. Does anybody have any questions? Dave.

## DISCUSSION OF ADVISORY REPORT

MR. SIMPSON: That was a good presentation and I think good advice. As far as trying to understand lobster, I know I at least come from mostly a fish world and they behave better than lobsters do. You can usually age them and things like that so there are distinct advantages. But the one thing that always strikes me with lobster is this dynamic of it being a cannibal and territorial.

So, I think there is this mechanism that sort of drives them to reproduce themselves at a higher rate the faster you remove some of these larger, more territorial, more cannibalistic critters, and I wondered what your thoughts were on that.

DR. MILLER: Well, certainly, that is a common feature of crustacean stocks all over the place, and so that density dependence and perhaps strong density dependence in crustacean is something we should expect. Because the University of Maine Model is tracking what is out there, it should incorporate the density dependence, but if you don't include it in the forecast you make or in the understanding of the potential dynamics of the stock you're going to underestimate the potential responses you could see, and so that is where the danger is of not including that kind information is that you have sort of artificially constrained idea of the uncertainty in the stock status.

MR. JAMES GILMORE: Regarding the reference points, I didn't quite get it before. It seemed to be the difference between what the review team and the technical committee are talking about, and could you just go over the pros and cons of each one.

DR. MILLER: Let me see if I can clarify. If you think of a reference point - let's think of a reference point for a moment as a top target, something you're trying to achieve. The natural variability in the biology of the animal, the natural variability in the behavior of the fishery through management actions or through economic actions means that it is unlikely that you are ever going to achieve that target.

Sometimes you will be below it; sometimes you will be above it. That's okay for a target. What the assessment team recommended was a median value not for a target but for a limit, and so a median value has that same sort of characteristic. Half the time you expect your values to be below the median; half the time you expect your values to be above the median. So if you set that as a threshold that you don't want
to cross, half the time you expect to be below it not because of any failure of management or not because of any failure of the fishermen to respond to management just because of natural variation.

So we thought that was a very inappropriate foundation to base a threshold reference point. A threshold is something you want to avoid, and so if you set that threshold as a value that you know you expect to be below half of the time just because of natural inter-annual variability, that seems to be putting a considerable pressure on you as a management board to act or reacting to something that may not be giving you a true signal of danger, but may just be giving you a signal of natural variability.

CHAIRMAN CULHANE: Okay, before I get to our next question, Kim wanted to make a comment from the technical committee.

## TECHNICAL COMMITTEE COMMENTS

MS. McKOWN: The technical committee really appreciated the review of the review panel. They did an excellent job. We support the advisory report except for their recommended reference points. The reasoning is because we don't feel it is precautionary enough. When you look at the Gulf of Maine abundance over time, if you took half of the median the Gulf of Maine stock has never been at that point.

We are concerned if that is your threshold, that the population is so declined at that point that it is too late. If we looked at the table that Dr. Miller showed before, for Southern New England we're actually even though the abundance is at some of the lowest levels we have seen, it is still above that threshold, and so we think that it is just not quite precautionary enough and by the time we hit it, it's too late. We realize, also, that this is just based on history of what has gone on in the last 20 years, and it is not a biologically based reference point. That is why we would recommend going with the median.

MR. MARK GIBSON: All three presenters this afternoon I think have remarked about the centrality of the growth transition matrix and calling and referring it to the core of engine of the assessment model. It strikes me that an assumption of a fixed matrix that is derived externally is a very strong assumption; in fact, one that might be risk prone.

I have been thinking about why, for example, in the Gulf of Maine that the model can't track the declines
in the two major surveys. It strikes me that it is possible because it has got information from a length composition that says the mortality rate must low and landings must be high or perhaps the growth rates have changed so the animals are moving through the length bins differently than they used to; and since we're fixing that, we're not able to - it's causing a bulge on the other side of the models.

I am very concerned about this growth transition mix. I understand this is the first time through, but it strikes me that that could be risk prone and could be leading us to come to conclusions that are not warranted. I just wanted to hear some more of your thoughts on that.

DR. MILLER: First of all, I think you're quite right to identify the growth matrix as one of the key elements of the assessment model. I think the assumption of constant and fixed growth probably is unrealistic. However, if I was doing the assessment, the first time through I would have made exactly the same assumptions because you need -- to use a basketball analogy, you need to keep a pivot foot down.

The first thing through is to assume that constant and fixed; and then once you begin to understand the behavior of the model, you can relax those assumptions. I am sure that is the intention of the assessment team as they move forward into relaxing those assumptions. So given that concern, that to my mind highlights the reason for keeping the CollieSissenwine Model as a benchmark against which you will always be able to compare back. I think that highlights in my mind the reason for keeping both models moving forward rather than shifting wholly over to the length-based approach.

MR. HARRY MEARS: I have one question, but an issue I don't quite understand is the difference in conclusions using the University of Maine and the CSM Model. As I understand it, one of the key differences is in the University of Maine Model it sounds like it is more robust. It can accommodate an increasing number of surveys, scope of surveys, plus it is open to, for example, length-based information, what is happening in the population.

At the same time there are sentences particularly for the Georges Bank stock and the Gulf of Maine stock that indicates respectively, I believe, 7 and 12 percent are sexually mature at capture, which in and of itself to me sounds alarming, but perhaps it is not because recruitment is so darned good.

I'm not sure if that is the anecdotal answer to that, but if positive things are going on with lengths in the Gulf of Maine population I would suspect, then, in the past the percentage that were sexually mature at capture was probably very much lower than 12 percent, which would lead to a conclusion that is different than would be demonstrated by the CSM Model.

I guess my take-home question is how sensitive, if at all, is the University of Maine Model to changes in age or is sensitive to percentage of harvest that is sexually mature from year to year or from benchmark to benchmark? How important is the size range in the lobster population to the finding of whether a population is healthy, overfished or not overfished? That's my question

DR. MILLER: In part the answer to that is that the University of Maine Model is going to be sensitive to the length frequency in the population because it tries to fit the length - it tries to describe the length frequency, so changes in the length frequency in the stock will have consequences for what the Maine Model infers is going on. I am less certain of how sensitive the model would be to changes in the maturity function that goes into it, and I don't know that those analyses have been fully completed.

DR. GENEVIEVE M. NESSLAGE: The main way in which the maturity curves enter into the population estimates is in portioning out what proportion of the population is spawning stock biomass versus total abundance, and so that is where it comes in. If you look at our estimates and figures of total spawning stock biomass, that's where it is going to affect it the most. But if you're looking at total abundance, it is less relying on the maturity curves. Really, it is not relying on the maturity curves at all. Does that answer your question?

MR. MEARS: Somewhat; I'm still puzzled in the grand context of where we're going with identifying what should and should not be in the definition of a rebuilt lobster population; how critical or how important is the age structure or the length structure of the population? That's what I'm still unsure of and what I don't think I've heard conclusively talked about.

DR. MILLER: And I think you're not alone in struggling with that, and I don't think that refers just to lobsters, either. There are increasingly interest in other stocks to worry about the age and the size diversity because the assumption is a broader age diversity, a broader size diversity gives you increased
resilience because the range of size or the range of ages have differing spawning behaviors or different spawning times, and that variation allows the population to hedge its bets about environmental variability. So, I don't think there is a simple answer to what is the best size structure for the stock.

DR. STEWART: Just reflecting on the last couple of thought patterns in size of maturity or age and maturity; and thinking somewhat out of the box, like we were when we were earlier assessing lobsters in the seventies, it just brings to mind the concept of the Gulf of Maine lobster stocks and trying to rectify age at maturity, large fecundity sizes.

If you look at the hydrodynamics of that Gulf of Maine total basin, much of your recruitment, I would suggest - and sorry, George and Pat - comes from the Scotian Shelf. The counter gyre in the Gulf of Maine with several subunits of different carapace length management that Canada imposes on their provincial fisheries - and we have long recognized it, and I don't see it in the synthesis of what our population model is.

So, just a suggestion; I don't have any real current history on this, but I think a lot of the hydrodynamics of our larval drift repopulation patterns are as important as the degree of recruitment indices. You have to know where they're coming from and not where they're settling. These are things that I see are very important in assessments.

DR. MILLER: Mr. Chairman, can I respond? We did in fact discuss sources of recruitment and hydrodynamics. There is a fairly topical paper that was published last year by a research team from the University of Maine that used a coupled physicalbiological model to examine where recruits went given their release points, given where they were spawned.

What we would recommend is the inverse analysis and asking where did the recruits arrive and where were their parents because that would give you some idea of if there are particular areas that need to be conserved or managed differently for different size structures; that if there are some areas that are what are known source stocks that are responsible for seeding all of the Gulf of Maine coast, then you might want to have different management strategies for that area than you would for the other areas.

So, we are at the point or at least physical and biological oceanographers are at the point of being able to run those analyses, to run those models now
in reverse and ask where did these recruiting lobsters originate from? That was one of the recommendations that we gave in the panel review.

DR. STEWART: What is that citation of the recruitment pattern paper?

DR. MILLER: It is in the review, and I am afraid not be able to pronounce the gentleman's name. It is Xue and then Incze and Wolff and Pettigrew in Ecological Modeling.

MR. DOUGLAS GROUT: Two of the recommendations here that the peer review panel has developed that intrigued me the most are their recommendations on the reference points, their suggestion of having a different threshold value right now and in the future looking at the development of a biologically based reference value. Kim, I assume the technical committee hasn't met since this peer review to evaluate this; one, their suggestion for the current reference point and -

MS. McKOWN: We spoke on the phone last week and that is why I mentioned earlier that we felt that the recommended reference points were not as precautionary as what we had recommended. We agree totally with the review panel that we need to move on to try to develop biologically based reference in the future.

CHAIRMAN CULHANE: Okay, if that is it for the questions - Vince.

EXECUTIVE DIRECTOR JOHN V. O'SHEA: Mr. Chairman, I'm not sure whether this goes to Dr. Miller or to Kim, but the report said that Southern New England was depleted in the previous assessment, and I think the words up here were "has not recovered" yet in this assessment. I noticed that fishing effort has gone down, suggesting that environmental conditions, whether it's water temperature or disease or predators; would that suggest that this stock could get to a certain level where it's going to be possible to recover? Is that feeding into the technical committee's or stock assessment committee's difference in position regarding the precaution, sort of difference of opinion between the review panel and the assessment team?

MS. McKOWN: Well, I think one of the things going on in Southern New England is we're not seeing good recruitment. Recruitment has bottomed out, and so the population has gone down and nothing is coming in to fill back up. Even though the reference points that the peer review panel said

Southern New England would not have hit the threshold, their recommendations were that we are close to that threshold and that something should be done. So we're not really very different there. As far as whether or not it can be rebuilt, I can't answer that question.

## CONSIDERATION OF ACCEPTANCE OF ASSESSMENT AND ADVISORY REPORT

CHAIRMAN CULHANE: Okay, the next thing we have is to consider acceptance of the assessment and the advisory report. Jim. move to accept the Lobster Stock Assessment and Peer Review Advisory Report, but utilize the revised reference points recommended by the technical committee.

MR. GILMORE: Mr. Chairman, I
CHAIRMAN CULHANE: Motion by Jim; seconded by Bill Adler. Discussion on the motion.

MR. GEORGE D. LAPOINTE: I was going to second the motion, but I put my hand down when Jim said to use the reference points recommended by the technical committee simply because I need more understanding of what that means and how we would make changes to that. I am not concerned at all about working on them, but I don't know what it means at this point in terms of the management context to put them in place, and so I am a little uncomfortable with that second part of his motion.

CHAIRMAN CULHANE: Okay, Toni thinks she might be able to help you out.

MS. KERNS: Just because you accept this document doesn't mean that you adopt the reference points that are recommended by the peer review. To change your reference points, you will have to go out with an addendum to adopt any new reference points, so until then we would continue with the previous reference points, which is the median as the TC had recommended.

MR. GILMORE: Okay, I will modify it just to remove the section about the reference points.

CHAIRMAN CULHANE: Okay, discussion on the motion? Okay, are we ready to call the question? The motion is move to accept the Lobster Stock Assessment and Peer Review Advisory Report; motion by Mr. Gilmore; seconded by Mr. Adler. All in favor raise their right hand; any opposed; any null votes; any abstentions. The motion passes.

## DISCUSSION OF MANAGEMENT RESPONSE TO ASSESSMENT RESULTS

The next item on the agenda is discussion of management response to assessment results. If the board wanted to take any management actions as a result of this, you could do it now or you could mull it over and consider it for an upcoming meeting. Okay, Toni would like to remind us what our current measures are first.

MS. KERNS: Mr. Chairman, really quickly I will just go through our current management measures by area. This is the map of our lobster management areas. As a reminder, some of the management areas overlap with multiple biological stock units. Some of the coast-wide measures that we have, we have a minimum size in place, non-trap fishermen follow the 100/500 rules. All non-wood traps must have a ghost panel. You cannot possess a v-notched lobster. You cannot possess parts, meat or speared and there is no possession of berried lobster.

Area 1 had an 800-trap limit, a 3-1/4 minimum size, the vent that corresponds. There is mandatory vnotching for all berried lobsters; a zero tolerance vnotch rule; and a maximum size of 5 inches. Area 2 has an 800 maximum trap limit with historical performance allocations; 3-3/8 minimum size; 5-1/4 maximum; the vents that correspond. There is voluntary v-notching, and the v-notch possession rule is $1 / 8$ of an inch with or without setal hairs.

Area 3 has historical-based performance allocations; 3-1/2 minimum gauge size. This year they will be at 6-7/8 for maximum gauge size, and next year that will go down to $6-3 / 4$. The vent size will change in 2010. The v-notch definition is mandatory above 42 degrees 30 minutes; and below it is voluntary, and their v-notch definition is also the $1 / 8$.

For Area 4 there is historical-based allocations; 3-3/8 minimum; 5-1/4 maximum; corresponding vent; voluntary v-notching and the $1 / 8$ v-notch definition. In Area 5 it is all the same rules as Area 4. Area 6 has the historical performance allocation. Their minimum size is currently $3-5 / 16$ with the conservation equivalency program of the v-notch; 5$1 / 4$ maximum; the corresponding vent size, which is incorrect up there, I apologize; voluntary v-notching; and the $1 / 8$ of an inch v-notch definition.

In Outer Cape Cod there is an 800 maximum trap limit; historical-based performance allocations; 3-3/8 minimum size. There is voluntary v-notching, and

Outer Cape Cod is the only area with the $1 / 4$ inch notch without setal hairs.

In the past two advisory reports from the peerreviewed assessments there have been recommendations to include recreational data in the assessment. That information varies by state. The state regulations have some sort of limit on the number of traps or gear types for recreational fisheries and require permits, but little of that harvest information is actually collected by states. For the commercial fishery we 100 percent dealer reporting and at least 10 percent trip level harvester reporting.

The only two upcoming management measure changes are in Area 3 and that is the maximum gauge drop as well as their vent size change. Because that there are no pending management measure changes.

MR. MEARS: Mr. Chairman, I have a comment for primarily as a placeholder perhaps at a future lobster board meeting. A lot of the recommendations and results stemming from the most recent stock assessment that we have been hearing now for the last three hours or so, and they emphasize the importance of data, data, data. Continuing levels of resolution are the importance of the ventless trap surveys.

Ironically what we're seeing this fiscal year is an order of magnitude to less funding dedicated to lobster research than we have seen in past years. We used to see primarily through dedicated funding earmark, the plus-up funding through the commission and increased acknowledgement of the importance of the data needed to fuel lobster management stock assessments and the resulting management decisions.

We're at a point now where I think the absence of a strategic way to ensure to the degree that we can the continuation of the funding needed to accommodate the escalating need for intensifying levels of lobster data is a weakness, and I think it needs some very directed discussion probably beginning with the board. I don't know any other place to begin that discussion, but I don't think it can begin too soon. Thank you.

MR. GIBSON: I was going to try to provide my answer to your question on where do we go from here. I think the primary issue is obviously the Southern New England Region, and I think the secondary issue is the Gulf of Maine. With regard to the Southern New England Area, it is a very serious situation.

We're going to have to configure some sort of management response to the entire area south of Georges Bank in terms of an attempt to rebuild that. I don't know that it can be rebuilt in all parts of its range, but I'm pretty sure it can be rebuilt in some of them. I think the technical committee is on record somewhere as saying this is kind of our last try at indirect catch limitations, and you're probably going to need to stop fooling around with those and go to direct catch measures.

That is going to be ugly because it won't be supported by industry. That is my sense right now where we need to go. I think we need to mull this over some. I'm certainly not prepared configure or initiate an addendum or whatever the vehicle is to do this. I think I would like to talk about some more and we come back at the summer board and maybe have some thoughts as to where we can go.

I think the Gulf of Maine has an issue as well because of the discrepancy between the size-based model and the catch survey results, and this board is going to have to I think make some kind of a decision. Given the peer review panel to keep them both going and consider both of them, we're going to have to make some kind of decision as to what they believe is the case up there. That is not a fight I want to lead.
I'll leave that to my northern colleagues, but that is how I see the issue. I think we need some time to think about these and maybe get some technical committee input from them and advice on how to proceed.

MR. P. WHITE: I just had a question, if I might, Mr. Chairman; could you bring me back up to date with the Outer Cape? They don't have any maximum gauge and they're still at 3-1/4 inch on the v-notch?

MS. KERNS: Yes, that’s correct.
MR. ADLER: Mr. Chairman, once again Mark started it. I think we need to mull all this over and come back in August and see if there is anything that we need to move on, because we do have to be very careful as we do this with all the other rules that have been in place and haven't really had time to digest themselves into the system. My answer to that is, yes, let's mull it over in answer to your question there on the agenda.

MS. KERNS: Mark, you said that maybe you would like the TC to mull some things over. Are there any direct tasks or questions that you would have for them, to pass on to them for some guidance?

MR. GIBSON: Again, I remember somewhere in some report where there was statement from somebody. I don't know whether it was a peer review panel or technical committee that we have been focusing on indirect measures at this point, trap reductions and technical measures and things like that.

I think at some point somebody back there said, you know, you may have to consider direct catch limits. I won't use the awful word that all the industry hates, but I think we better pull that memorandum out and have the technical committee think again and maybe remind us what they said the last time relative to the measures that might be needed to rebuild this resource.

MR. SIMPSON: I just wanted to support what Mark said. I think the Southern New England Area needs a very close look in terms of what kind of regulatory response we need to make. That is true in spades in Area 6. I am very concerned about the stock status for Area 6; the lowest landings' levels we have seen since we have been keeping track. Our trawl survey indices support that is a result of very low stock size. I think we're going to have to look hard at ways to keep the stock from completely collapsing to the point where it can't support a commercial fishery.

MR. LAPOINTE: If I muddle it over by myself I won't get very far more than likely. My intention would be to go back and get the report and get my folks, including Carl who is on the technical committee, and say, "What would you challenge us to consider?" I think that is a question and those are tough questions. You know, what would you challenge us to consider in moving this fishery ahead, because I can't answer that right now, and then come back to the board and the technical committee with that, and I would encourage others to do it as well.

MR. HIMCHAK: Mr. Chairman, just on a scheduling question, at what point would you sit down with the LCMTs to discuss any kind of action on management in relation to this peer-reviewed stock assessment?

MS. KERNS: Pete, usually the commission doesn't dictate when you need to have an LCMT meeting. We've tried to have the states be proactive in determining when you want to have an LCMT meeting to get them involved. In the past we have had the LCMTs get involved at the beginning stages of determining any sort of management action moving forward, but it is the states’ decision to do so.

CHAIRMAN CULHANE: Any other discussion on this topic? Vince.

EXECUTIVE DIRECTOR O'SHEA: Do you mean on the stock assessment or the issue of next steps going forward?

CHAIRMAN CULHANE: Well, I was talking about the issue of next steps. I thought we had moved on from the stock assessment.

EXECUTIVE DIRECTOR O'SHEA: If you would just recognize me before you get off the stock assessment topic, please. I just wanted to publicly thank Dr. Miller and the review team, as well as Kim McKown, Dr. Nesslage, and there were a number of other people that worked really hard on this assessment.

Having Dr. Nesslage work on it has been very enlightening to me see how much effort actually went into this whole project. I think it is appropriate to publicly call everybody's attention to the great effort that went through. Again, Dr. Miller, we had a terrific review panel. I was up in Boston and you guys did a terrific job for us, and I want to publicly acknowledge that.

MR. R. WHITE: Just to make it clear in my mind, the next step in this is everybody is mulling this over, and at the August meeting we will have a task for the technical committee; am I correct in that? No.

CHAIRMAN CULHANE: Well, that's certainly a possibility. You know, come August people might need to mull it some more, but I think that's kind of the idea that we all jelled around.

MR. GIBSON: I was hoping that the technical committee would have a report for us in August that might help us frame where we are going better, and it may be just pulling out some of things they're already said. I think it is going to get serious now; something to that effect, but that is what I am asking them to do, give us some guidance particularly relative to Southern New England stock and what management actions we might want to consider to try rebuilding the abundance in that stock.

CHAIRMAN CULHANE: Thanks, Mark. Okay, do we have anything else on this before we move on to the Draft Addendum XIV? Okay, Toni.

## DRAFT ADDENDUM XIV

MS. KERNS: I am going to quickly go through the addendum as a reminder of what the addendum did and then through the public comment. We had public comment in March and April, and at this meeting will consider this addendum for final action. The Area 3 LCMT brought forward information to consider changes to its transferable trap program.

It had recommended lowering the transfer trap cap and adjusting the conservation tax. They recommended this to help maintain the objectives of the plan and also to allow for economic profitability through flexibility and to support creative options for future business planning. Amendment 3 outlines the transferable trap program for Area 3. The program allows Area 3 lobster fishermen to transfer traps to other lobster fishermen.

Then Addendum V reconsidered and established a new overall trap cap and conservation taxes for Area 3. The Area 3 overall traps have declined for each permit holder who holds a permit-specific allocation, and the maximum trap allocation for an Area 3 permit holder will be 1,945 traps once all the reductions are completed in 2010, which is lower than the current transfer program trap cap of 2,200.

It is also expected that the trap allocations will be transferable once all of the agencies have implemented Addendum XII. Addendum XII, as a reminder, put in place the ability to establish a transfer program. There is concern that once transferability has begun permit holders may seek to maximize their trap cap through these transfers and the end result, after years of transfers, would be fewer fishermen involved in the fishery and most fishermen fishing up to the 2,200 trap limit.

Given a fixed number of traps available in the fishery because we have already done allocations, any lowering of the trap cap as proposed in the addendum would result in more participants if the expected trend toward consolidation would occur. The conservation tax, a high tax would deter transfers. Currently there is a two-tiered system that is in place, and the highest tax is 50 percent and the lower tax is 20 percent.

This also had caused confusion in the fishery, and the trap cap is suggested being changed to reduce competition as well as to not have fewer participants in the fishery. The management measures that are being proposed in this addendum are all for federal
waters. The first option is the conservation tax. Option A is status quo; we would have the current tax. If you transferred up to 1,800 traps, there would be a 10 percent tax. If you transferred more than 1,800 traps it would be a 50 percent tax.

Option B is the proposed conservation tax change, and it would be a 20 percent tax on all partial transfers and a 10 percent tax on any full business sale. For the trap cap of the transfer program, Option A, status quo, is 2,200 traps. Option B is 2,000 traps.

## PUBLIC COMMENT REVIEW

We went out for public comment with this addendum. We received 41 written comments; one comment by an organization, the Atlantic Offshore Lobstermen's Association. Thirty-one of those comments were in a form letter. We held three hearings. Zero attendance was in New York; Rhode Island and Massachusetts held a joint hearing with four attendees; and New Jersey had five attendees.

Of the comments that we received, 13 were in favor of lowering the trap transfer cap. Those that were in favor suggested that the higher the cap the less economically sound the investment in the fishery becomes; that all can build up to the maximum of 2,000 traps because the maximum allocation would be lower. It would take more traps for some and less traps for others, obviously.

Before history-based allocations were set, the actual overall trap cap was at 1,800 at a period of time from 2000 to I think 2003; and lowering the cap so more participants can be in the fishery. The 31 form cards favored a status quo or a transfer trap cap that was based or tied to the individual's original allocation when we first started allocations in Area 3. As you recall, there have been tiered reductions for those allocations. Then five commenters favored a cap baseline tied to an individual's original allocation.

Of those commenters that were not in favor of the change in the transfer cap, some said that there is no conservation benefit in lowering the transfer trap cap because the number of traps out there will not change because of the allocations. There are individuals that feel the addendum doesn't follow the National Standard 2, which is the guideline that it doesn't use the best available data.

They also felt that it doesn't that it doesn't follow the National Standard Guideline Number 4 because the proposed regulations go against the fairness and
equity standard of National Standard 4. The allocation of the fishing privileges could impose hardship on one group if it is outweighed by the total benefits received by another group.

That commenter also stated that an allocation need not preserve the status quo in the fishery to qualify as fair and equitable, but a structuring of the fishing privileges would need to maximize the overall benefit. Those that were not in favor also commented that the proposed transfer trap cap violates National Standard 8, which says that we should take the social and economic impact into the proposed regulations in an attempt to minimize any adverse economic impacts. For the conservation tax the only commenters that commented on it were in favor of the change in the conservation tax. Are there any questions on the public hearing?

MR. GROUT: Toni, in the comments concerning the fact that we didn't use the best available data, were there any suggestions of what other data we should have used in developing this?

MS. KERNS: Not specific to what other data to use, no; in terms of precisely what datasets to use, no.

MR. GROUT: In a followup we use actual trap allocations as far as the data that we used for this addendum?

MS. KERNS: We looked at the actual trap allocations to see if anyone would have an allocation that was lower or higher than the proposed trap cap. When the final reductions are completed in 2010, no one will have an allocation that is larger than 2,000 , so we used the actual allocations that were determined by the National Marine Fisheries Service through that process and then following the reduction schedule that they had. David, do you have another edition from what the LCMT had in front of them. David Spencer is the chairman of the Area 3 LCMT.

## CONSIDERATION OF APPROVAL OF ADDENDUM XIV

MR. DAVID SPENCER: In terms of data, as Toni said it was just the allocations that were used. I think one of the things that the LCMT feels is central to this discussion is that the implementation of Option B in Addendum XIV will not be a taking of any type. Everybody will be below the 2,000 trap threshold.

The discussion really is how much somebody will have to buy in order to reach that. We're not taking anything from anybody. Somebody that is just below
it will have to spend very little money if they want to get up to that 2,000 limit. Somebody that is far below it will have to spend quite a bit of money.
Again, I just want to make sure everybody realizes we're not taking any traps away from anybody in this proposal. I think one of the things that I think is sometimes forgotten, there is a relatively long history in Area 3, particularly in the last ten years, of the participants fishing below 2,000. In 1999 NMFS imposed a 2,000 trap maximum that was lowered to 1,800 in 2000 and it stayed that way until 2003, which is when they started to acknowledge the historical allocation numbers.

Also, in the years 2009 and 2010 every Area 3 participant will be below 2,000 . From the year 2006 through 2010, the overwhelming majority of Area 3 participants will be below the 2,000 trap level. That was some of the justification and rationale that the LCMTs used in order to come up with this number.

We felt it was very fair and equitable and gave everybody the opportunity to build their business within the constraints of a rebuilding process. Admittedly, some can build more than others, but it comes with a price so we felt there was a balance there. One of the additional benefits that the LCMT felt was derived from this trap cap is, as Toni pointed out, with the finite number of traps in Area 3, the lower the trap cap then that would enable more participants. We felt that was an important thing to identify.

That's all I really have to say on the trap cap. The conservation tax I believe is just a simplification. We think it will simply the conservation tax structure and at the same time encourage more transfers; therefore, removing more traps through our conservation tax. I would be happy to answer any questions.

MR. GIBSON: A question I have about the timing of this now; we have just heard and received and accepted the results of a stock assessment, and Area 3 cuts across three stock assessment areas. I think with a mixed bag of results, problems in the Southern New England Area, it may be okay on Georges Bank and there may be something going on in the Gulf Maine depending on which assessment model we look at, how do we proceed with these measures in Area 3 when we haven't figured out how to respond to a stock assessment that has that mixed bag? I don't have the answer to that and I just throw it out there for consideration.

MS. KERNS: Mark, just to make sure it is a clarification that the whole board understands is that
this addendum isn't suggesting a reduction in the trap cap. It is just a transfer program trap cap, so it is not changing anybody's original allocation. It is a change that an individual will make if they decide to participate in the transfer program itself, so just setting Area 3's rules and guidelines for their already-established transfer program.

MR. LAPOINTE: My response to Mark's question is that we're certainly going to have to consider other things, but this addendum has been in the pipeline a long time, as I recall. If we think it is the right thing to do under current conditions, I think we should pass it, make the choices and pass it with the understanding to the folks in Area 3 and every other area that as we come to grips with what the management responses to the assessment are, we are going to have to make changes as well.

MR. McKIERNAN: I would to just make a brief comment; and then if you'd like, I'd be prepared to make a motion. My comment comes from Massachusetts where we work with the Outer Cape Effort Control Program, which is very similar. It is a good thing that the LCMT is desiring to have a simpler conservation tax other than this two-tiered tax that I think does discourage transfers.

But the second thing I just want to share with the board is that the Outer Cape Plan in some ways was the trailblazing plan for this kind of a program. They were the first to come up with this kind of a transfer program and trap limits; and after four years of having this they came to us and they said, "We want to lower the trap limit from 800 to 600 ."

We said, "It's too late. You know, you have already had many fishermen building up to this higher number." Many in the fleet said, "Well, a more optimal level of operation is really a 600 -trap limit." And the response we gave them, "Well, you know, you should have thought of that in the first place."

I think what the Area 3 LCMT 2 is doing now is sort of forecasting that and coming up with it now, which is more appropriate because once you allow people to build up it will be almost impossible to scale them back to that other level. In other words, if somebody builds up to 2,200 traps, how do you then regulate them smaller? You really don't so this is the time to enact something like that.

I would be prepared to make a motion to approve this addendum through three motions, if you like. The first motion would be to adopt Option B in Section 4.1.1 that creates a 20 percent conservation tax for
permit holders transferring partial allocations and a 10 percent conservation tax for permit holders transferring whole allocations or businesses.

CHAIRMAN CULHANE: We have a second from George Lapointe. Discussion on this motion. Dave.

MR. SIMPSON: I feel compelled to comment, but I'm not sure. I don't have my thoughts well congealed. It is just my general reaction to transfer taxes, conservation taxes. When they're large enough - my experience through the New England Council I guess is when they're large enough to be meaningful, nobody will transfer because of that fact. It is also sort of punitive against only those individuals that are engaged in a transfer for whatever reason.

It seems to me if we want to reduce the number of traps, it should be done across the board for all fishermen when it is deemed necessary and not concentrated on those who happen to have to leave the fishery because of some condition in their life or choose to. I will just throw that thought out there for the board and maybe someone has a good response that will change my mind, but that's my feeling on it.

CHAIRMAN CULHANE: Anyone else from the board? Bonnie, would you like to make a comment?

MS. BONNIE SPINAZZOLA: Just in response to that last comment, I would like to say that, first of all, it is voluntary, so anyone who is volunteering to participate in a transfer would be the ones who would know ahead of time that they have to have the 20 percent conservation tax. It has been my experience that the industry is in favor of this conservation tax. Further, the reason that it is being changed from the 50 percent down to the 20 percent was for that exact reason.

The industry didn't want to convince people that the transfer was inappropriate, and they wanted to encourage the transfers. That's why they went down to the 20 percent, still giving people the ability to take traps out of the fishery through transferability.

MR. McKIERNAN: To respond to David, my experience with the Outer Cape Transfer Program and our in-state fishery in Area 2 where we have a lot of transfers, because this transfer program has been on the radar screen of fishermen for about seven years, by the time it gets put into place the traps that you're going to see transferred are those who are fully ready to leave the fishery or the latent traps that aren't being fished at all.

That has been my experience in those two fisheries that the first permits to go are those that have been dying to go, so it is not punitive and it's not somebody just didn't come upon some bad personal conditions. These are people who are lined up to go, so you might as well get those traps out of the system. Otherwise, it will be a lost opportunity if you don't get them at this phase.

CHAIRMAN CULHANE: Okay, Toni has a followup.

MS. KERNS: And just so the board is aware and to remind yourselves that Addendum XII that was passed at the last meeting, I believe, requires that any transfer program have at least a 10 percent conservation tax, so all transfer programs have to have some established conservation tax.

MR. ADLER: Mr. Chairman, just very briefly, it was a passive move that would not hurt fishermen that are trying to fish. They wouldn't be told they have to take traps away. It was decided through all of the things, it was a way to reduce the traps pretty painlessly, and the fishermen agreed. We already have the trap tax. All this is doing is just making it a little simpler; that's all. We already have the trap tax in there but it gets a little complicated, so this particular motion just simplifies something that is already in there. Simple is good.

CHAIRMAN CULHANE: Okay, do we have any other comments from the board? Dave.

MR. SPENCER: I think two points; one I neglected to bring up before and Bill reminded me of something. I think the passive nature of this conservation tax is important because Area 3 has had over 30 percent active trap reductions in the last six or seven years. The passive nature is very important to us. It is very difficult to get continued active reductions.

The other thing that I wanted to bring up for the record; one of the big discussion topics that made the LCMT arrive at the 2,000 number was we feel this is a very competitive fishery; that it is likely once transferability is implemented, many people will buy up to the top trap number. There is a long history of that in Area 3 before regulations. This is how we arrived at fishing so many traps.

Somebody comes in and fishes next to you with a couple hundred more; you go buy a couple hundred more, and then up the ante. This reduction from 2,200 to 2,000 is an attempt to stop that. We
recognize it is economically not viable and nor smart. I just wanted to get on the record that was another item that helped us reach this decision. I support this motion on the table. Thank you.

CHAIRMAN CULHANE: Okay, I think we're ready for a vote. Does anybody need time to caucus on this? Okay, we're all ready. All in favor of the motion please signify by raising their right hand; all opposed same sign; any abstentions; null votes. The motion carries. Okay, on to the next thing; Dan, you have another motion for us?

MR. McKIERNAN: Yes, my second motion is to move to adopt Option B in Section 4.1.2 that results in a new trap cap of 2,000 traps.

CHAIRMAN CULHANE: Okay, we have a new motion on the table; seconded by Pat White. Any discussion on the motion? Okay, I have nothing from the board. I think we have heard comments from the audience, but anybody from the audience? Are ready for a vote? Do we need time to caucus? All in favor please signify by raising your right hand; any opposed same sign; abstentions; null votes. The motion carries; nine in favor, none opposed; one abstention and no null votes. The previous motion was eight, one, one, zero.

MR. McKIERNAN: My third motion has to do with compliance. I don't want the states to go forward with rulemaking unnecessarily since, as Toni mentioned earlier, this is an exclusively federal area. These motions today as a board gives the fishery and the federal government guidance and expresses our wishes of how this should be managed.

NMFS will have to follow up with their own rulemaking, so it didn't make sense for us as states to be forced to enact rules by a date certain. My suggestion through this motion is to approve Addendum XIV as modified today. Regarding states' compliance deadlines, states shall be required to enact regulations instituting these changes upon NMFS completing rulemaking on Addendum XIV recommendations.

CHAIRMAN CULHANE: We have a motion; do we have a second? Seconded by Mark Gibson. Discussion on the motion. Toni has a comment.

MS. KERNS: The motion that Dan just made also is in concurrence with the agreement in Addendum XII where transfer programs - fishermen that are fishing in federal-only waters would follow the guidelines of that federal program, and the National Marine

Fisheries Service would set those allocations and be sort of the main contact for any transfers occurring in federal waters.

MR. SIMPSON: I was wondering as far as what regulation changes any states would have to make. We don't have any Area 3 fishermen that I am aware of, but other states - and the timetable for it. It this all right as it is or do we need to think about the time required for states to implement and what date, similar to what we did with some other species yesterday?

MS. KERNS: I think this is enough. For those states that do not have Area 3 fishermen and they have sort of some general language in their plans that just follow the commission addenda, this would not promulgate those regulations until the National Marine Fisheries Service finalized their final rulemaking.

For those states that do have Area 3 fishermen, that they would work their legislative bodies in conjunction with the rulemaking that the National Marine Fisheries Service put in place, if and when that does happen.
CHAIRMAN CULHANE: Okay, any other questions or comments from the board?

MS. KERNS: I can't comment on the time period that would be. I would have to ask Harry Mears to comment on the time period for any rulemaking.

MR. MEARS: Mr. Chairman, all I can comment on is we are under rulemaking and passage of Addendum XII was a very major benefit for us to be able to move forward on that. At the current time the best I can say is we are involved in rulemaking as we have been. Thank you.

MR. HIMCHAK: Mr. Chairman, considering the action taking place in Area 3, even with Area 3 fishermen what regulations would the state have to take or what regulatory changes would we have to take if the whole trap allocation is based on what the federal rules say?

MS. KERNS: I guess it is an agreement of the individual's trap limit; so for those states that work under a memorandum of understanding in giving out those individuals their trap tags, they would be working in conjunction with the National Marine Fisheries Service to make sure that if a transfer did occur, that they would be giving out the right number of trap tags.

CHAIRMAN CULHANE: Okay, are we ready for a vote? All in favor please signify by raising your right hand; all opposed same sign; abstentions. Okay, the motion carries nine in favor, none opposed, one abstention. Mr. Adler.

MR. ADLER: Is it appropriate now to make a motion to approve Addendum XIV as selected?

CHAIRMAN CULHANE: That was incorporated in this motion, Bill. Well, thank you all for moving through that so quickly. We got a little behind and we're not so behind now. The next item on the agenda is the Area 1 LCMT Report from Terry Stockwell.

## AREA 1 LCMT REPORT

MR. TERRY STOCKWELL: As background for you all, there are roughly 2,000 trap permits and nearly 700 non-trap permits in Area 1, and it is pretty clear that effort has been increasing in federal waters over the last number of years. Last the year the LCMT 1 met three times to develop criteria to achieve limited entry in Area 1.

At your summer meeting last year a report was made with the Statement of Problem, the goals and a request for a control date. The control date was published in the Federal Register of January $2^{\text {nd }}$ of this year. The team met again in April to finalize their recommendations for limited entry for federal permits in Area 1.

At this meeting multiple members of the team expressed concern about the potential for non-trap permits to start fishing traps when the groundfish sectors are implemented in Groundfish Amendment 16. The team discussed and then voted to reaffirm the intent of their motion from the June meeting of last year, but it was amended to accommodate the recently published control date and to extend the trap tag order time criteria.

I would like to read the motion into the record, which is to recommend to the ASMFC Lobster Management Board to initiate an addendum to cap permits to fish traps in federal waters of LCMA 1 by requiring a qualification process for federal permit holders to obtain authorization to maintain the permit: One, a federal permit; two, proof of LMA 1 designation as of January 2, 2009; and, three, appropriate trap tag orders for LMA 1 for years 2004 through 2008 as of January $2^{\text {nd }}$. It was a unanimous vote by the entire team.

The team wanted me to clarify that lobstermen had to show buying tags during any one of these years but are not required to have purchased tags in every year. They also had the following consensus recommendations to the board. One is that permits are to be capped but the number of permits is not to be reduced in Area 1.

They would like to see the ability to transfer trap tags only within Area 1 and to continue to allow Area 1 permits to be bought and sold. Because of the fiveyear qualification proposal that they have, they realized there might be some concern from the board over the length of this time, but they wanted to underscore the consideration of the medical and military exemptions.

And to actually summarize - and it came from one of the commissioners - this proposal will address two essential effort control issues in Area 1 by preventing non-trap permits from converting to trap permits and by not allowing trap permits from other LCMA areas to be able to declare into Area 1. That concludes my report.

CHAIRMAN CULHANE: Thank you, Terry, for that report, and I assume Toni will get a copy of that if she hasn't already. Any questions for Terry? Bill.

MR. ADLER: Mr. Chairman, if that was in the form of a motion - is Terry free to make that motion or does it have to come from over there or how does that work?

CHAIRMAN CULHANE: I took it as it was a recommendation from the LCMA 1 for a motion. Dan.

MR. McKIERNAN: I have a concern. I attended the meeting and the fourth bullet that Terry just mentioned about a consensus recommendation; I have a concern about that. I would like to bring it to the board's attention, and that is the consideration of consideration of limited medical and military exemptions.

As recall in the meeting we extended the time period for having to buy trap tags in just one year to a full five-year eligibility period, and we thought that was liberal. We also felt that by liberalizing that up to five years you would not need the kinds of military and medical exemption accommodations.

I can speak personally, dealing with the military and medical exemptions in Addendum VII - and I am sure Mark can say the same - that in government it is
very difficult to deal with people's claims about medical issues. So, when this document says "consideration of limited medical", it is practically unlimited; that it is very difficult for us to do that.

So, if this is going to go forward, I would like it not include that but just to be the five-year eligibility period. I apologize that I should have maybe read these minutes more carefully and gotten back to the folks who drafted them because they did a good job on them, but I do remember that transpiring, that we extended the time period so we did not have to deal with military and medical.

CHAIRMAN CULHANE: Okay, thank you, Dan. Doug.

MR. GROUT: Terry, could you do me a favor and read those four consensus recommendations because unfortunately when I printed out the minutes I didn't get page two. My page two is blank and it has those bullets.

MR. STOCKWELL: Cap permits but not reduce the number of permits in Area 1; maintain the ability to transfer trap-only permits within Area 1; continue to allow Area 1 permits to be bought and sold; and Dan's mention of consideration of limited medical and military exemptions. Dan's portrayal was very accurate of the tenor of the discussion at the team. It was just brought up to me after the meeting they wanted to underscore the importance to them of some accommodation, but some concern that if the board compressed the time period, that the board fully understood that that was their intent.

MR. ADLER: But the basic part of this was to go along with the federal control date and to require the qualifications for buying trap tags. That is the primary, buying trap tags between these dates, and that was the primary thing, with these other consensus things afterwards, just as a buildup, but is that correct, Terry?

MR. STOCKWELL: That is correct, Bill. The motion was to recommend to the board to initiate the addendum.

MR. P. WHITE: Mr. Chairman, can I get Doug to make that as a motion just because I don't have it written in front of me, without the exemption clause in it, then, please?

CHAIRMAN CULHANE: Doug, I don't know if you're ready to make a motion.

MR. GROUT: If we're through with the discussion, I would be glad to.

CHAIRMAN CULHANE: Bob, did you have a point you wanted to make?

MR. BOB ROSS: I just wanted to support Dan McKiernan's recollection of the discussion regarding the medical exemption; that I participated in the discussions also and recollect that the initial dialogue recommended a very short one two-year qualification period. Then as the conversation went on, the military and medical exemption arose, and there was a suggestion that it could create difficulties in qualification; that to avoid that option, a longer time period for the qualification period would be more appropriate. My recollection was the majority of the LCMT supported that approach.

MR. GROUT: Mr. Chairman, I would like to move that the board initiate an addendum to cap permits to fish traps in federal waters of LCMA 1 by requiring a qualification process for federal permit holders to obtain authorization to maintain LCMA 1 permits; A, federal permits; B, proof of LMA 1 designation as of January 2, 2009; and, C, appropriate trap tag orders for LMA 1 for years 2004 through 2008 as of January 2, 2009. Further, include the consensus recommendations to cap permits but not reduce the number of permits in Area 1; maintain the ability to transfer trap-only permits within Area 1; continue to allow Area 1 permits to be bought and sold.

MR. P. WHITE: Second.
CHAIRMAN CULHANE: Okay, we have a motion; it is seconded by Pat White. I do want to caution the board that we have been on a deadline. We're supposed to be done by 6:15 and it is now about 6:13. We need to move rather quickly on this, but I don't want to call the question quite yet. If you have comments, let's please keep them to the point. Harry.

MR. MEARS: Mr. Chairman, a question for the maker of the motion. It is my understanding that the motion from the Area 1 meeting concerning acquisition of tags between 2004 and 2008 was for any one year during that period and not for all of these years. I just want to seek that clarification.

CHAIRMAN CULHANE: I see heads nodding that is correct. George.

MR. LAPOINTE: The Consensus Recommendation Number 3 talked about permits being bought and
sold. Technically, Harry, they can't be sold, but can't they be transferred. I don't want to put something in that is contrary to federal law.

MR. MEARS: It is not politically correct to call it "sold" so your suggested change in wording would be a good change.

CHAIRMAN CULHANE: Any other discussion on this? Dave.

MR. SIMPSON: I guess just a general question of the usual requirement for publication of a control date, proper notification to the public that they would be treated differently after some period of time, and I thought this is something that was visited previously that Area 1 explicitly did not want limited entry in Area 1, and I'm wondering how this retroactive requirement to have trap tags five years ago fits into that.

CHAIRMAN CULHANE: I am going to look to the maker of the motion. Pat, do you want to address that?

MR. P. WHITE: Well, there is a control date that was published in the Federal Register as of January. That was published in the Federal Register.

MR. SIMPSON: Well, to that, then, I'm not sure how you can require that they have had activity in the area prior to January 2, 2009.

MR. McKIERNAN: David, I think the function of the control date is to tell people on that date what you do in the future you may not be able to maintain your position in the fishery, so what we're doing now is we're actually putting some detail for this control date saying, okay, the control date was passed; you must have bought a trap tag in any one year prior to this control date for five years.

And as far as the Area 1 interest about limited entry, this is only governing the federal permits. There are three states in Area 1, and there are varying degrees of limited entry in the three states, and that is not being addressed by the particular motion.

MR. MEARS: Mr. Chairman, just to make sure we're all on the same page and for clarification purposes, "C" still not read correctly, I don't believe. It should be for any one year during the period 2004 to 2008.

CHAIRMAN CULHANE: Well, while they're working on that, do we have any other comments on
this? Okay, any other discussion; last chance? Okay, we're ready to call this question. The motion is move that the board initiate an addendum to cap permits to fish traps in federal waters of LCMA 1 by requiring a qualification process for federal permit holders to obtain authorization to maintain LCMA 1 permits; A, federal permit; B, proof of LMA 1 designation as of January 2, 2009; and, C, appropriate trap tag orders for LMA 1 for any one year between 2004 through 2008 as of January 2, 2009; including the consensus recommendations to cap permits but not reduce the number of permits in Area 1; maintain the ability to transfer trap-only permits within Area 1 ; continue to allow Area 1 permits to be transferred. Motion by Mr. Grout; seconded by Mr. White.

All in favor of the motion please raise your right hand; all opposed same sign; any abstentions; any null votes. The motion carries. Now we're on to other business and, Lance, you had a presentation you wanted to make on Area 6. I'm sorry to do this but I have to ask you to make it as brief as you can.

## OTHER BUSINESS

DR. STEWART: Certainly, Brian. I have been strongly urged to report to the board on the status of our V-notch Lobster Restoration Advisory Committee Progress in Area 6. Two of our organizations have strong concerns, one of the advisory panel members, and especially my cocommissioner Doc Gunther, who regrets he couldn't make here. It may be his last chance to attend an ASMFC meeting, so he extends his regards.

But, to get right to the issue, we're at a point where we're about a year and a half into the v-notch program, funded with a million dollars from the state of Connecticut, employing about 30 different boats and probably a hundred different students. We have achieved the first year's objective of 60,000 conservation equivalent lobsters to achieve the adaptive management objective of not going up on the gauge for lobsters in Long Island Sound.

We're probably 15 or 20 percent into the next year's objective. The funding has leveled off or gone to zero. We're seeking another $\$ 300,000$ from the state of Connecticut and other sources. We're hopeful that we can reach the goal and the commitment that we had. One thing that gravely concerns us is that even if we do these two v-notch years to stave off the size increase, that the board is going to put down the gauge increase anyway the next year.

The industry is strongly opposed to that for several reasons. These handouts that I've brought down were given to me to carry to you, one from the advisory panel member, on events that just occurred, an extremely negative editorial in our largest Southeastern Connecticut newspaper that negated the v-notch program and said the size increase is inevitable.

It angered the whole fishing industry and it actually put a bad light on what the legislature had thought was an extremely successful program, giving the industry support, economic bailout, educational advantages, a tremendous data stream of lobster population data from fishery-dependent trips and sampling at sea and sort of a reformed goodwill between the department and our fishing industry.
We're worried about the source of that negativism. It was sent to all of our legislators. The letter in response to that editorial from John Whittaker is enclosed here. Another situation, just to be brief, is that we're prepared to fight until the end to not have the size go up for Area 6. It is biologically wrong, ecosystem-based wrong, economically wrong.

If you want to aid the fishermen and increase the landings, drop the size back down to $3-1 / 4$. Our lobsters reproduce at $3-3 / 16$ inches 95 percent of the time of that gauge increase. There is no biological reason to raise the size to increase recruitment. The recruitment retention in Area 6 is probably 95 percent. There is no dilution.

The v-notch program in the peer review report highlighted for the North Cape Response was extremely successful in number of added eggs up to 52 percent. However, they suffered a dilution factor in their hydrography in Southern New England. We would retain 95 percent. So, just to reiterate, the value of our v-notch program is amplified by two or three times.

For the lack of migration of our lobsters, the importance of maintaining genetic integrity and characteristics and behavioral traits of the population and add-on for several other economic values, I think the way to manage our fishery is for maximum economic sustainability as well as msy.

I mean, just to cite a case, the state of Maine had one of its best landing years, economic failure almost. I mean, George and Pat know some of the problems. So, if you don't maintain your marketplace, distributional fidelities in a species, especially as important as American lobster and especially where we are in Connecticut right next to the New York
markets and high suburban areas, it is an unwise strategy for this board.

So, anyway, I'm bringing the reflected comments of my industry people, Doc Gunther and myself, and I'll be hoping to work with the technical committee on a lot of these subtle nuances about the unique nature of confined Long Island Sound population biology. Anyway, that's where we stand. I thank you for your time.

CHAIRMAN CULHANE: Thank you, Lance, and I would suggest that if you have anything and if you want to go further with this and bring it into the next meeting, that you get on the agenda ahead of time so we're not, again, under other business when we're running out of time.

DR. STEWART: Just in response, Brian, this was a spontaneous reaction to events that occurred two or three weeks ago. I would formally have put it on the agenda.

CHAIRMAN CULHANE: Thank you, Lance, and unless anybody has any other business - Bill.

MR. ADLER: I will make it quick. Do we have time on this issue like at the August meeting where something could be done about this and the requirements?

CHAIRMAN CULHANE: Okay, that is just what I said to Lance. If he wants to go any further any further with this, get something together ahead of time for the August meeting. We don't have any more time for it tonight.

DR. STEWART: Could I request it right now, Brian?

EXECUTIVE DIRECTOR O'SHEA: Mr. Chairman, I would suggest that a request has been made for a topic, but I also think that in order for us to schedule a topic and for you all to have a discussion and frame the issues, we're going to need some commitment and the request includes a commitment to deliver that to us in time to prepare it for the disk and the schedule, if it is with that understanding I think from a staff perspective we could accommodate that.

MS. KERNS: And just to clarify the rules following the Area 6 Conservation Equivalency Program, if Area 6 meets the goals of the program at the end of Year 2, then the gauge increase does not occur, and the future of that program, if it continues into Year 3,

4 or 5, will then determine whether or not the gauge increase occurs.

What the Lobster Board stated at the last meeting was that we got information that we didn't think that goal would be met; and if that was the case, then those states that are affected needed to know that their gauge increase would go up on January 1, 2010 if that goal was not met. If the goal is met, then we would follow the program that was outlined in the conservation equivalency plan from Area 6.

## ADJOURN

CHAIRMAN CULHANE: Well, thank you all for your patience, and the meeting is adjourned.
(Whereupon, the meeting was adjourned at 6:27 o'clock p.m., May 5, 2009.)

