

MEETING SUMMARY
AMERICAN LOBSTER TECHNICAL COMMITTEE
February 7-8, 2001

Participants: Carl LoBue, Vic Crecco, Carl Wilson, Kevin Kelley, Bill Andrews, Bob Glenn, Bruce Estrella, Tom Angell, Clare McBane, Joe Idoine, Larry Jacobson, Larry Trawbridge, Jennifer Dianto, Mike Fogarty, Dick Allen, John Sorlien, Kurt Gottschall, Heather Stirratt.

Approval of January Minutes

Addition: Heather Stirratt pointed out that there were 4 referenced attachments included with the minutes. These attachments are as follows:

- Attachment 1: Larry Jacobson's handout - "Reference Points; What They Are and What Examples are Available for Crustacean Fisheries."
- Attachment 2: A working table on alternative reference points.
- Attachment 3: A working table on how goals can be reached and tools needed to meet these goals.
- Attachment 4: Dick Allen's handout - "Missing the Boat. Why Economics Beats Biology in Providing Fishery Management Guidelines."

Motion to approve the January minutes with the above additional attachments: Carl Lobue; seconded: Bruce Estrella.

It was pointed out that non-Technical Committee members did not receive the opportunity to comment on their statements mentioned in the minutes. Heather Stirratt will include these changes.

Commission Staff Update

- Management Board Update

Heather Stirratt gave an update on the Lobster Management Board meeting last Thursday (Feb. 1). Addendum 2 and the public comments were covered. Included in these discussions were:

- Areas 2, 3, 4 and 5 and the outer cape must increase the gauge annually by 1/32" increments and increase vent size accordingly.
- Mandatory reporting in Area 3 logbooks and mandatory trap reduction.

The Board concluded that Addendum 2 should be finalized by the end of February. LCMT's are to review and revise (if necessary) their stock rebuilding programs in order to meet the revised egg rebuilding schedule. LCMT Commissioners are to be made

aware of changes. Areas 1 and 6 do not have programs presently in place. These programs are to be submitted before June 1, 2001. Any changes will have to be reviewed by the Technical Committee. These egg rebuilding programs will be finalized by Addendum III, no later than the end of 2001.

Long-Range Planning and Meeting Expectations

Refer to Attachment 1 provided by Heather Stirratt.

- In view of efficiency, Gordon Colvin has encouraged the Technical Committee to review conservation equivalency proposals before Amendment 4 is completed. Concern has been expressed by members of the Lobster Management Board that conservation equivalency must be quantifiable before the managers can make a decision on Amendment 4.
- **LIS** (revisited)
- Management Board members have asked how the die-off in Area 6 will affect the Area 6 stock rebuilding program. There is some concern from TC members about whether lobstermen exaggerated the decline of lobsters in Area 6, given that this information is closely linked to disaster relief monies. There is also concern that all catch information has not been reported for New York and that the trawl survey for Western LIS is a short time series.
- Discussion of the LIS die-off continued. It is unknown how typical a die-off is in Western LIS, when considered in the long term. In 1998, high lobster abundance started in Western LIS. It was pointed out that unlike LIS, a decline in lobster landings off southern Massachusetts and Rhode Island in recent years, was not preceded by a disease outbreak (Vic had pointed out in the January Technical Committee meeting that high lobster densities (in LIS) may have encouraged the spread of disease, resulting in the die-off in Western LIS). It was pointed out that there is always some die-off during molting and that parts of Western LIS periodically experience hypoxia.
- A warm water spike (as during a hurricane) might have exacerbated the die-off of the dense lobsters.
- Fifty animals/month are currently being sent to the University of Connecticut to do crustacean disease screening. The paramoeba has been found present in lobster all the way to Niantic Bay (Nov. 00). Before this time, only lobsters from Western LIS were found with the paramoeba. A report is expected in April 2001.

Next Assessment

- Amy Schick scheduled the updated assessment (at least one initial internal update) for 2002. Heather Stirratt asked how the timing of the updates were planned (regular update or direction from the Lobster Board). Heather pointed out that there are two ways to schedule an assessment: a full peer review every five years or a review every one or two years by the Technical Committee internally. It was pointed out that with many finfish, an update of the stock status occurs every year, but this is not required. Some Technical Committee members feel that five years is too long a time period between assessments. It was pointed out that it is time consuming and a complicated procedure to educate the relatively rapid turnover of agency employees. Heather Stirratt pointed out that from what was discussed here, an internal stock assessment update would likely occur in 2003.
- It was stated that a database is needed before a stock assessment begins, otherwise, a lot of time is wasted. The information put into a stock assessment should be archived in order to be able to reproduce the information that goes into an assessment (if needed). Heather Stirratt pointed out that it's very expensive to have an archive and she will discuss this matter with the R&S/ACCSP affiliates at the Commission. Larry Jacobson, however, pointed out that the database does not have to meet ACCSP standards and is a project that does not require a lot of money. It was suggested by Carl Wilson that the Maine (ORACLE) database or the Gulf of Maine foundation might be used as a housing area. It was pointed out that a consistent person is needed to oversee this database. Discussion followed as to how much time this position would need.
- Heather Stirratt suggested that the stock assessment sub-committee be liaison with R&S/ACCSP. She will bring the Technical Committee concerns to the Commission and discuss their response at the next Technical Committee meeting.

Reference Points

- Heather Stirratt provided an article (Attachment 3) "A short review of precautionary reference points and some proposals for their use in data-poor situations." by John Caddy.
- There was discussion pertaining to two tables (Attachment 2 & 3 from January 2001 minutes). These two tables are to be revised before their presentation to the Board. It was noted that these tables are complicated. Carl Wilson offered to put together a short Technical Committee position paper; however, there was general consensus that Technical Committee recommendations should not be provided until that Board identifies what types of reference points/goals and objectives they wish to pursue.
- It was concluded that for the next Board meeting, a document summarizing

and explaining the tables would be produced and explanations and discussions concerning options and risks would be led by Larry Jacobson (to be present at meeting). Larry Jacobson believes that the tables can be sorted quickly by asking questions of the Board. These questions would distinguish between:

- overfished vs. overfishing
- thresholds vs. targets
- risk adverse vs. not-risk adverse (e.g. the approach).

The goal is to provide a clear and readily understandable document allowing the process to move forward in an efficient manner. Some members would like numbers “crunched“ in various models before presenting them to the Board. Carl Wilson stated that at a minimum, the document will contain the four classes (see below) and at a maximum work using the Sissenwine-Shepherd approach.

- Heather Stirratt pointed out that the Board meeting is on April 23, 2001, with a deadline for all information to be distributed to the Board by April 1, 2001. However, as in the past, information can be provided to the Board the day of the meeting. Carl Wilson suggested a conference call prior to the next Board meeting.
- The four approach classes (for reference points) to be presented to the Board follow:
 1. Sissenwine-Shepherd Approach
 2. F_{SPR} (F_{10%} family)
 3. Surplus Production Models
 4. Model Independent
- Mike Fogarty pointed out that the Board should be aware that there are two ways to approach reference points. These two approaches are either to ward off a problem or solve a problem. Mike stated that it is better to be proactive and not reactive.
- The question of how to deal with uncertainties in model parameters was brought up. Mike Fogarty pointed out that the information needed for models is not always complete and it is necessary to make philosophical decisions.

LCMT Proposal Evaluation Process

- It was stated that the Technical Committee must establish ground rules to efficiently review Area LCMT stock rebuilding programs. This work will be considerable for the Technical Committee and it is important for communication between Area LCMT's during this process. Heather Stirratt provided the Commission's process for evaluating LCMT proposals (see Attachment 2).

- It is known that the Management Areas are not autonomous (refer to August 24, 2000 report to the ASMFC American Lobster Board - Attachment 4).
- Carl Wilson brought up the point that he believed there was a Technical Committee consensus in August 2000 that the Technical Committee does not have the ability to evaluate proposals on an area-by-area basis, but evaluation by the Technical Committee can be carried out by stock areas. No other Technical Committee members supported this consensus.
- Discussion followed on how to reach F_{10%} on an area-by-area basis. All areas have to be held to F_{10%} until a policy change occurs.
- Joe Idoine pointed out that that the assessment of all proposals are based on assumptions and that the committee should forward its best advice, with the knowledge that future assessments and development of future assessment tools will give indications of the need to fine tune analyses and the appropriate advice.
- It was suggested that all Area LCMT's communicate with each other while working on their own fishing mortality reductions. It is questionable whether or not areas will have competing measures. It was suggested that each LCMT have a designated person to be in charge of communications. Heather stated that LCMT leads/chairs send meeting summaries to her attention.

Measuring Conservation Equivalency

V-Notching:

- Joe Idoine suggested that the TC support a uniform v-notching definition that offers the maximum benefit from the practice. Estrella added that the Board has resisted several attempts to change the current ASMFC definition, in that there are enforcement problems associated with some alternatives. V-notching is assumed to protect females for approximately 2 molts, as it is applied in the model. There was a discussion on how V-notching is used for modeling purposes, such as its two-molt duration and 100% protection (i.e. zero-tolerance).

In summary, Heather Stirratt pointed out that:

1. The Technical Committee can provide estimates in quantitative terms for some items.
2. Some aspects of proposals may also need to be evaluated on a qualitative level.
3. The Technical Committee will attempt to look at LCMT proposals by Management Area and Sub-management Area.
4. The Technical Committee recommends that the V-notching definition coast-wide should be uniform.

Examination of Available Data from Outer Cape

- Bob Glenn presented information (past & present) concerning the V-notching conservation equivalency in the Outer Cape Cod Lobster Management Area (Attachment 5). The purpose of his presentation was to bring this issue back to the forefront by reviewing the analyses already presented in June and to present additional analyses that evaluate the efficacy of the V-notching conservation equivalency proposal.

Discussion followed:

- Carl Wilson still believes that this is a situation where one area conservation equivalency is negating another area's conservation equivalency (MA-ME) and he would like to examine the percentage of egg-bearing lobsters that are V-notched in the Outer Cape waters. He is interested in the migration of these animals. It was pointed out by Joe Idoine that what Carl asks for will affect how the Technical Committee will look at all Management Areas proposals. To assess a given area's plan in terms of what effect it will have on the entire resource is beyond the available data and capability of the TC. It was pointed out by Bruce Estrella that the lobsters in question (which support the Outer Cape Cod fishery) are highly migratory but some proportion of lobsters in this area are residents. Due to migratory patterns oriented both southward and northward in the Gulf of Maine, and some degree of local notching occurring in MA waters, the origin of any v-notched lobster observed off Outer Cape Cod can not be determined. Also, due to changes, which occur in the character of the notch, which may happen before molting, we know that when V-notched lobsters are released, there is no guarantee that the animals won't be harvested later. Joe Idoine again stated that, with current information, the Technical Committee can only judge what the benefit would be in a given area. If all areas put back more than they take in the long run, there will be a healthier resource. One area cannot claim rights to a certain group of lobsters.
- Carl LoBue recommended that the analysis of conservation equivalency (for the OCC proposal) be done using the two most recent years of data. This would more accurately represent the number of 83 mm lobsters caught with the new vent size in place. Years previous to 1999 may over estimate the harvest of animals in this size category. In addition, the analysis done by Bob Glenn compares the conservation benefits of a 1/25" gauge size increase with the benefits of releasing v-notched lobsters. However, the Outer Cape proposal calls for a 1/32" increase. The egg production estimates of the gauge increase should be reduced by just over 20% to reflect the difference. Carl believes with these two changes that the Technical Committee is on the correct tract here to figure out the conservation equivalency.
- Carl LoBue pointed out that since the coast wide requirement to release v-notched lobsters came into effect (1997) the Outer Cape lobstermen are

releasing animals that they used to keep. Presently, the TC gives an egg production conservation credit for the act of v-notching, however no credit is given for releasing v-notched lobsters (as in OCC). Perhaps, credit should be given for the releasing of v-notched lobsters. Particularly since we have just shown that there is conservation benefit to releasing v-notched lobsters. With the data we have available we should be able to estimate a conservation benefit in terms of egg productions of 1) continuing to release lobsters under the current MA law as well as 2) if the OCCLA adopted the more restrictive definition used in ME. Perhaps if given the option, and understanding that going up in the gauge size doesn't necessarily reduce fishing mortality rates while releasing the v-notched lobsters does, the Outer Cape lobstermen might reconsider their conservation equivalency proposal.

- Heather Stirratt pointed out that the Board wants to know if conservation equivalency can be quantified and measured. Joe Idoine stated that this particular proposal can be evaluated and he feels that what Bob Glenn has done is adequate.
- The following vote took place:

The Technical Committee reviewed the preliminary proposal by the Outer Cape and can quantify and measure to the best of their ability the Outer Cape conservation equivalency dealing with the alternative measure to prohibit the possession of V-notched female lobsters.

Motion to accept the above: Carl LoBue; seconded: Joe Idoine. The majority of the Technical Committee voted yes by a show of hands.

Examination of Rhode Island dragger request to uplift the 500/100 limitation.

- Tom Angell reiterated that the trawlers in Rhode Island are requesting there be no limit to the number of lobsters they can take during June/July. This timeframe is during molting of the lobsters, and involves 12 boats. Tom Angell noted that his past analysis found that the average trip catch is 25 pounds. If 100 lobsters were caught every time (day) they went out, their landings would quadruple. John Sorlien expressed his concern that a limit has been set on trawlers and not on the traps. Tom noted that Rhode Island utilizes a multi-species license and allows those in possession of this license the ability to use traps.
- Carl LoBue suggested grandfathering of the 12 boats in return for forfeiture of their right to fish traps.
- Heather Stirratt inquired into whether the Rhode Island lobstermen were going to submit a proposal for conservation equivalency. In response to a question about whether the non-trap gear section could request de minimis status, she replied that only an entire state can request de minimis and that

this criteria does not apply for an individual gear sector of the fishery.

- Several Technical Committee members stated that this request does not fit under conservation equivalency.

Coastwide Trawl Survey Analysis

Examination of trawl survey data for trends in lobster abundance.

1. **NMFS Survey**

(refer to Attachment 6)

- Larry Jacobson presented the preliminary NEFSC bottom trawl data for the Gulf of Maine, Georges Bank South and Southern New England. There is no “recruitment alarm bells” in the NMFS survey data. However, it was pointed out that the NMFS survey occurs in deeper water than the state surveys.
- There are some limitations as go back into the data (pre-1982) because the information recorded varies from the more current years. Joe Idoine is going back into the 1960’s data.

2. **Connecticut Survey**

(refer to Attachment 7)

- Kurt Gottschall presented the Connecticut bottom trawl survey in LIS. Kurt pointed out that the pre-recruits were above average in recent years but declined in 1998-1999; thus, lower landings in the future can be expected.
- Carl LoBue informed the Technical Committee of the status of disaster relief funds in New York. The best numbers will be available after August 2001 when the buyback program (\$12/tag) is completed.

2. **Massachusetts Trawl Surveys**

(refer to Attachment 8)

- Bob Glenn presented the fall Massachusetts trawl surveys from the Gulf of Maine and Buzzards Bay. Both male and female pre-recruits in the GOM experienced a slight increase in abundance over the last three years, despite this increase abundance levels of pre-recruits have varied without a definitive trend throughout the time series. Survey abundance trends in Buzzards Bay of pre-recruit male and female lobsters have declined dramatically since the early 1990’s. Abundance of recruits have remained consistently low in this time series.

4. **Rhode Island Trawl Surveys**

(refer to Attachment 8)

- Tom Angell presented the Rhode Island trawl surveys. He indicated that in the last 3 or 4 years, numbers of pre-recruits and recruits are declining according to the fall and spring surveys. Actually, pre-recruits have been declining since 1993. The young of the year settlement index from Wahle suction samples has dropped in numbers during its 10-year time series including 1999-2000. The trawl survey data presented show the abundance of pre-recruits drastically declining from a time series high in 1993. The abundance of recruits have declined significantly since 1997. The YOY index from Wahle actually shows a long term declining trend since the inception of the time series.

5. **New Jersey Trawl Surveys**

(refer to Attachment 9)

- Bill Andrews presented the New Jersey trawl survey. Recruits went up in numbers in 1998.
6. Joe Idoine presented 2 figures (see Attachment 10) looking at female indices in the Gulf of Maine and Georges Bank. Joe looked at the relationship between recruits (those below minimum size) and those animals above minimum size 5 years previously to see how many recruits these animals produced. Joe pointed out that the Gulf of Maine is producing 3-4 times more recruits per spawner (i.e. those above minimum size 5 years earlier), suggesting greater survival. This study suggests that if survivorship drops, and the fishing effort does not, there will be a downward trend in recruits.
7. Carl Wilson indicated that there were abundant sublegals in the Maine DMR's first inshore bottom trawl survey which was initiated in 2000.

Effort Reduction Discussion

(refer to Attachment 11)

- Bruce Estrella presented the trap certificate program proposed by Area 2. Effort reduction would be accomplished over a ten-year period through a phased reduction in total trap numbers allowed for use in Area 2. For example, the total number of commercial traps used in Area 2 in 1999 (39,000 in the MA segment) would be reduced by 50% (19,000 for MA) over a ten-year period of time. If the plan begins in 2002, the lower level of 19,000 traps would be reached by 2012. This plan includes 2 categories of lobstermen and a number of transferable and non-transferable traps.
- Discussion followed the presentation. The principle goal is to control expansion of fishing effort in Area 2 and this will likely be met. More discussion will occur at the LCMT level.

Cooperative Research Possibilities

1. Joe Idoine asked if there is any interest in the acoustic tagging of lobsters in

LIS/Buzzard Bay areas to examine the movement of lobster. Carl LoBue indicated he was willing to cooperate as did Bruce Estrella.

2. Jennifer Dianto and Carl Wilson and organizations in Maine will be sending proposals to the Northeast Consortium for funding of projects. These proposals address:
 - a. Ventless trap survey
 - b. Funding of hatcheries in Maine
 - c. Marine electronic workbook (thistle units)

Discussion followed. The ventless trap lobster survey is underway, but a standardized trap is needed. It was pointed out that hatcheries are an expensive adventure. Bruce Estrella indicated that hatchery egg production is miniscule compared to natural egg production by wild lobster. Support of hatcheries is minimal due to latent mortality from lower lipid levels in hatchery reared lobsters compared to that of wild lobster, disease, and high predation levels upon release. Stocks have increased regionwide in recent decades without the assistance of hatcheries. Dick Allen pointed out that in the past he agreed, but felt that the only redeeming value of hatcheries may be when stocks are at an extremely low level, then even a very low rate of survival of releases could be positive. A big concern is who will pay for them. The use of electronic workbooks for lobstermen to electronically record their catches is underway. Carl Wilson indicated that 20 units are already in use on boats with 100 more ready to be used. Carl believes that a wealth of information on the lobster resource will be collected through their use.

3. Jennifer Dianto asked if the Technical Committee would be willing to review New England Aquarium proposals. It was pointed out that the Technical Committee is not a review board, and it was suggested that the Lobster Forum would be a good place for their review. Heather indicated that if the New England Aquarium produces a formal report every 6 months, they could send it to her and she will e-mail it to Technical Committee members for review.

Additional Items

1. Subcommittee nominations have been finalized and are as follows:
 - a. **Socio-Economics** - Jim Wilson, Jim Acheson, John Sutinen, Dick Allen, Eric Thunberg, Rob Robertson, David Terkla
 - b. **Model Development** - Vic Crecco, Mark Gibson, Larry Jacobson, Young Chen
 - c. **Effort Control** - Carl Wilson, Bob Glenn, Joe Idoine
 - d. **Database** - Bruce Estrella, Joe Idoine, Kevin Kelly
2. Bob Glenn asked that Technical Committee members send comments to him by April 1, 2001 on his table pertaining to effort and potential traps fished (see Attachment 12).

