#### WEAKFISH TECHNICAL COMMITTEE

April 16-17, 2007 Baltimore, Maryland

## **Meeting Report**

## **Participants**

Russ Allen, NJ, Chair Jeff Brust, NJ, SASC Chair Joe Cimino, VA Ellen Cosby, PRFC Vic Crecco, CT Christina Grahn, NY Des Kahn, DE Joseph Munyandorero, FL Brian Murphy, RI Lee Paramore, NC

Charlie Wenner, SC Bob Beal, ASMFC Megan Caldwell, ASMFC Nichola Meserve, ASMFC

### **Overview**

The Technical Committee (TC) met for two days with the following objectives: review state implementation plans for Addendum II; develop Board advice on Draft Addendum III; review Florida's methodology to partition weakfish catch into weakfish, sand seatrout, and hybrids; develop a set of stock measures to track management progress; discuss state trends, assessment methodologies, and sampling requirements; and begin planning for the next weakfish stock assessment. The Committee's last meeting was June 22-23, 2006.

## Review state implementation plans for Addendum II and develop guidance for the Board

The Weakfish Management Board approved Addendum II to Amendment 4 on February 1, 2007. The included implementation schedule requires states to submit implementation plans by April 6, 2007 and implement approved programs by October 29, 2007. The TC reviewed the available implementation plans from RI, NY, NJ, DE, MD, PRFC, VA, and NC and found that each report included a commitment to meet the two requirements of Addendum II (150 lb. commercial bycatch limit, 6 fish recreational creel limit). No state representative at the meeting anticipated any delay in implementing its program by the October 29 deadline. The TC recommends that the Board accept each of the reviewed implementation plans for Addendum II. (Implementation plans from MA and CT were submitted after the TC meeting. SC, GA, and FL are *de minimis* and not required to implement Addendum II.)

## Review Draft Addendum III and develop guidance for the Board

Draft Addendum III addresses an inconsistency in the certification requirements of bycatch reduction devices (BRD) in the South Atlantic Fishery Management Council's Shrimp Amendment 6 and the Commission's Weakfish Amendment 4. Weakfish Amendment 4 requires BRDs that are certified to demonstrate a 40% reduction by number or a 50% reduction of bycatch mortality of weakfish when compared to catch rates in a naked net. However, Shrimp Amendment 6 requires a BRD to demonstrate a 30% reduction of finfish weight when compared to a naked net for certification. Draft Addendum III has already gone to public comment and will be considered for final approval when the Board meets on May 8. The TC was tasked with providing comment on the addendum and technical advice as to the potential effects of implementing the preferred alternative to alter the Weakfish Amendment 4 requirement for consistency with Shrimp Amendment 6.

The TC found it difficult to evaluate the potential effect of implementing the 30% general finfish by weight requirement without knowing more background about the testing that had been done

of BRDs and why the Council had taken the action. The TC wanted to know what percent of the bycatch is weakfish. Charlie thought it was close to 1%. The TC wanted to know the trend in shrimp trawl effort. It was thought that NC and SC have had a reduction in their effort. Such an effort reduction and a low amount of weakfish in the bycatch suggest that the change in certification requirements would not have a large effect on weakfish bycatch rates. However, there is no guarantee that the decline in shrimp trawl effort will continue or that effort will remain stable. Charlie stated that shrimp and weakfish do co-occur off the coast of South Carolina and so the TC questioned a statement in the addendum about trawlers having to fish outside of traditional shrimping grounds to catch weakfish and test BRDs. Another potential problem discussed by the TC was that the decision to change the reduction requirement was based on a weakfish stock that was increasing as fishing mortality was decreasing. More recent updates to the weakfish stock assessment have shown an increase in natural mortality that has lowered the biomass to severely low levels north of southern North Carolina. However, much of the area with shrimp trawling may not have seen the same decline in weakfish (southern NC southward). Lee pointed out though that significant shrimp trawling occurs in Pamlico Sound, where the stock does seem to have declined.

Other than the language clarification changes listed below, it was determined that Nichola and Russ would do some additional research to provide to the TC on the certification protocol and the research supporting the Council's decision to alter the certification requirements.

Suggested Alterations for Addendum III (additions are underlined, deletions struck through)

- Amendment 6 was adopted in 2005 and the certification of any new BRD now requires a statistically demonstrated reduction in the total weight of finfish bycatch by at least 30% minimum of 30% reduction in finfish bycatch.
- The Commission supports the basis of the Council's decision to modify the BRD
   <u>certification</u> requirements in Amendment 6; however, the reasoning included a statement on
   weakfish status based on earlier virtual population analysis, which has since been proven to
   be flawed and the weakfish stock is currently <u>overfished</u> <u>below the biomass threshold</u>
   (ASMFC Weakfish Stock Assessment Subcommittee 2006a, 2006b).
- The new protocols in Amendment 6-place the burden of proof on the National Marine Fisheries Service (NMFS) and will promote the testing of new devices that aim to both reduce finfish bycatch and retain shrimp catch. [It was unclear what the "burden of proof" language meant and concern for what legal implications it could have. If this refers to the transfer of authority and responsibility for modifying the BRD testing protocol from the Council to NMFS also in Shrimp Amendment 6, the TC does not see why it is included here because it is not germane to why or why not the Board supports the preferred alternative.]
- Finally, because weakfish generally react favorably to a BRD and escape from the net compared to many other finfish species such as flatfishes (SAFMC 2004), the 30% reduction of total finfish weight in the new SAFMC Amendment 6 will likely result in equal or greater protection to weakfish specifically.
- Option 2 (Preferred): Modify the BRD provisions of Amendment 4 to be consistent with SAFMC Amendment 6 to the Shrimp FMP (All required BRDs must demonstrate a minimum of 30% reduction in finfish bycatch by weight number when compared to catch rates in a naked net.)

# Review Florida's method to partition NMFS estimates of weakfish landings into weakfish, sand seatrout, and weakfish-sand seatrout hybrids

A Florida Fish and Wildlife Research Institute (FWRI) genetics team led by Mike Tringali has conducted this work on the composition of 'weakfish' harvested on the east coast of Florida. The team found that what is reported as weakfish landings is actually a mix of weakfish, sand seatrout, and a hybrid. A hybridization zone centered in the St. John's River was identified, as well as a gradient in genome composition along the coast. North of the St. Johns, weakfish were found to have a greater relative abundance, where as south of this area, sand seatrout were more abundant. The genetics team developed a set of multipliers to be applied to weakfish landings based on location to calculate an adjusted abundance of 'weakfish' (those specimens having >80% of its genome consistent with a true weakfish). Florida has begun reporting the adjusted weakfish harvest in its annual compliance reports to the ASMFC, and the Board allowed the adjusted weakfish harvest in the determination of Florida's *de minimis* status in 2006.

The TC discussed the two implications of the adjusted weakfish landings based on the genetics work: Florida's *de minimis* status and weakfish stock status. It was noted that the large Florida 'weakfish' landings reported through NMFS had been a contradictory signal to that elsewhere along the coast, and that the adjusted weakfish landings make more sense. The TC determined that without the proper level of genetics expertise, an evaluation of the scientific work by the FWRI team was not possible. The TC agreed, however, that the work appeared to be of a very high quality and given that the work is currently going through the peer review process, the TC had no reason to not trust the results. The TC noted that the genome composition may not be static and questioned whether the work would be redone on any particular timescale. The TC acknowledged that the results would mean adjusting the landings from Florida for the next assessment.

## Develop a set of stock measures to track management progress

Following the last stock assessment and during the development of Addendum II, the Board tasked the TC with developing a set of stock measures that could be used to track management progress on a yearly basis in between stock assessments. The TC developed the indicators below. Essentially, they are most of the data that goes into the stock assessment, thus this annual reporting will help the TC keep its data warehouse up to date. Russ will report these to the Board on May 8 and ask when the Board would like the annual report (probably its summer or fall meeting to allow time for data compilation and analysis) and starting in which year (Russ already reported some of the data through 2006 to the Board in February, so maybe not until 2008 with data through 2007).

- 1. Landings (in both number of fish and total biomass)
  - a. Commercial all states have preliminary landings available by January or February except NY. This can be done without NY until the state is able to get commercial data earlier.
  - b. Recreational MRFSS data are available by early spring usually
- 2. Biomass weighted fishing mortality (Scaled-up relative F) and estimates of stock biomass using recreational fishing effort from the MRFSS mid-Atlantic private boat data.
- 3. Adult abundance surveys
  - a. New Jersey Survey
  - b. Delaware Survey
  - c. Proportional Stock Density (PSD) A standard practice in inland fisheries management, a PSD is an index of size quality. You set a minimum size based on

recorded lengths (8" for weakfish) and a cutoff length for "quality" fish (13" for weakfish) and then estimate abundance for fish larger than each. The result is a quality plus index, i.e., the proportion of fish available greater than 13" for weakfish. Jim has done some preliminary work on this and found that the PSDs match up with other data pretty well in most locations. One benefit is that PSDs are not as sensitive to changes in vessels as CPUEs are.

- 4. Commercial Effort and CPUE DE, VA, NC. Note that the TC will need to define what a directed fishery is (for example, only one that harvests a certain poundage of weakfish). The TC may limit this to certain gears (ex. no mobile).
- 5. Young-of-year abundance indices the best indices to track to be determined\*
- 6. A graph of major predators abundance—striped bass, summer flounder, spiny dogfish, maybe croaker as a competitor—to show the larger picture.

\*Jeff noted that at some point the TC will need to go through the 7+ YOY indices and determine which are showing the best signal for stock status. Then area-weighting can be used for the different indices for the stock assessment. The SASC will look at Z transformed indices and attempt to develop a generalized linear model (GML) to better utilize the YOY indices.

# TASK: everybody to send updated landings, indices, etc. to Jeff Brust

## General discussion on methodologies and landings of mixed stock fisheries

Following from some earlier discussion on directed and non-directed weakfish fisheries, Russ suggested that each state representative provide a brief overview of the current weakfish fisheries, highlighting any new trends that indicate that weakfish has changed from a directed fishery to a bycatch fishery. These overviews follow.

### Rhode Island

Weakfish is mainly a bycatch fishery. Approximately 90% of the landings are from floating fish traps and trawlers. The traps, fished June through August and licensed to a particular site, target scup, squid, flounder, and striped bass. Of the 50 or so licensed sites, only about 25 are used each year. Most of the state's age samples (mostly 7, 8, and 9+ years) originate from one inshore trap fished near Point Judith. Here, mostly small traps in less than 20 feet of water are fished. Other traps fished outside of the Bay go to about 60 feet deep with leaders up to ½ mile. Trawls catch some small fish during the fall. The recreational fishery is nearly non-existent.

## New York

The state used to be a bigger player in the weakfish fishery. There was a spring gill net fishery in the past that no longer exists, partly due to management. Most weakfish are caught in the fall by trawlers. A lot of the weakfish trawl bycatch that occurred earlier is no longer present, due partly to larger mesh size. The recreational fishery is small but the catch is likely underestimated in the last few years. For example, it seems that the recreational catch should have been closer to that of New Jersey in 2005. While a difference in minimum size limit between the two states was suggested as a potential explanation for this, any NJ boat that crosses into NY water, as is common, must follow the larger NY minimum size limit. A large part of the recreational fishery occurs at night and is thus missed by the MRFSS surveyors.

#### New Jersey

The reduction in the ocean shad gill net mesh size from 5.5 inch stretch mess to less than 5 inch stretch mesh as required by the Harbor Porpoise Take Reduction Plan resulted in more of a

directed fishery for larger weakfish in that fishery beginning in 2000. With the closure of the shad ocean fishery in 2004, the fishery has decreased somewhat and is mostly directed towards weakfish and bluefish. While there was once a directed weakfish trawl fishery, the trawl fishery now primarily targets croaker and lands weakfish as bycatch. Weakfish are also caught as bycatch in the menhaden reduction and Delaware Bay bait fisheries. Commercial landings are mainly in the spring and fall. The recreational fishery is very locally based (ex. Sandy Hook, Raritan Bay) and can be quite variable with landings from Delaware Bay dropping considerably in recent years.

#### Delaware

The commercial fishery for weakfish historically operated from spring through June when the stock was in the Delaware Bay. The catches have significantly declined and come in a very brief period. Some small and medium fish are caught along the coast in summer and fall during the migration, although the catch is less than 1/10 of what it was. The recreational fishery has also really dropped off. Older fishermen say that in the 1930s there were few fish, then in the '50s it was a croaker fishery, and again in the '70s and '80s weakfish boomed. It appears that Delaware Bay has historically alternated between a high abundance of croaker or weakfish.

## Maryland

Both the commercial and recreational catches are at the lowest level ever. Maryland used to have a spring gill net fishery inside the Bay, but this is pretty much gone. The fall fishery hits down migrating fish. There is a trawl fishery from fall until around Christmas. Inside the bay, nets and traps catch weakfish as bycatch. There is a directed season but the catches are not high enough to give the appearance of an active fishery. The recreational fishery catches have not been significantly different from zero in the last few years. This makes any recreational sampling requirements hard to fulfill.

#### Potomac River

All commercial catch is from pound nets. In 2006, the catch was 689 pounds, which is a significant decline from historic catches (ex. >700,000 lbs in 1980). Recreational landings are reported in the MD and VA landings.

#### Virginia

Landings from pound nets have decreased. The decrease is a reflection of stock status, but probably also a decline in the number of pound nets fished, although this is a hard thing to get a handle on. There is a closed season but fishermen can get around it by dropping the number of nets that they fish.

#### North Carolina

The state has the most diverse fishery for weakfish. In the winter (November-April) the trawl fishery operates. The trawl fishery has historically landed the largest catches, although the ocean sink net (gill net) fishery recently surpassed it in landings. During the summer and fall, more inshore fisheries operate. The estuarine gill net peaks in spring and fall and the long haul fishery operates in summer. Pound nets catch mostly flounder, but also some weakfish. There is a beach seine fishery during the spring in some years. While there is no closed season, fly nets are banned south of Cape Hatteras. One recent change is that trawl and sink nets have historically had the largest catches (fall and winter), but in the last year long haul and estuarine gill net catches ranked highest. While all fisheries have declined, the inshore fisheries have declined at a lesser rate. There are still a lot of trips in the winter that target bluefish and croaker and when the prices for these two species bottom out in the winter, weakfish can fetch a good market price.

When a large weakfish catch is made, it is likely that the vessel thought it was setting on croaker. Regardless of these incidents, the volume of weakfish being caught does not flood the market.

#### South Carolina

There is no targeted commercial fishery for weakfish, although there is bycatch in the penaeid shrimp fishery. In the northern part of the state a developing recreational hook and line fishery exists on inshore "live-bottom" areas, which serve as gathering areas for bluefish and also weakfish. Small boats (<21 feet) make day trips as weather permits during waves 5 and 6. Most fish caught are 10-15". This is a very area- and season-specific fishery that has some potential for growth.

#### Florida

The inshore commercial fishery is mostly hook and line with some cast nets, beach seines, and purse seines. There are gill net catches reported from federal waters. Since the 1980s, the recreational fishery has been more important than the commercial. In the mid-90s more management regulations came into play, especially for the commercial fishery.

# Presentation on SEAMAP Ageing of Weakfish

Charlie Wenner provided an overview of the SEAMAP program, including sampling design, data collected, and the otolith processing procedure. SEAMAP ages about 4000 fish total a year. People can contact Charlie for a copy of the presentation, processing supplies sources, ageing procedure (USC Press has a manual), and any species data collected by the cruises.

## TASK: Charlie to supply SEAMAP weakfish data from 2003+ to Jeff Brust.

Charlie noted that the Albatross IV is being replaced by the Bigelow, a much larger vessel with a deeper draft, thus all the inshore sampling typically completed by the NEFSC trawl will be eliminated.

## Review the need for age-based assessments

The TC agreed that VPA is a valuable tool for a historical perspective of the stock, adequately modeling abundance and fishing mortality for most years. The VPA is alluring because it provides a lot of detail. The development of the catch-at-age provides good information about what ages are being harvested, and the VPA provides information on the selectivity of the fishery (i.e., fishing mortality at age). VPA can thus show stock response to changes in management.

The surplus production model (SPM) on the other hand produces F averaged across all ages. This is one example of how the SPM is simpler than the VPA, one reason why some TC members supported the SPM for use again instead of a VPA. On the other hand, a review was mentioned in which the same data was used in a number of models and the SPM resulted in values that were pretty far off from the rest. It was noted that reference points from both SPM and age-based models are of limited use due to non-equilibrium. An age-structured model does not provide good estimates if fishing mortality is not the cause of stock change.

While providing more detailed output, there is a tradeoff in using VPA in terms of retrospective bias and the data intensive nature of the model. VPA suffers from retrospective bias in the last few years, which makes it inappropriate for modeling the most recent trends in stock size and mortality. The value added from using more complex, data intensive models might not be cost effective for states. That is, the time and effort required to collect the data required for an age-

based assessment (and the risk of a non-compliance finding if a state can't) might not pay off in the results from an age-based assessment. Sampling will only get more difficult if stock size declines further. The questions that need to be answered now might not be age-structured questions, and another round of age-based assessments might not get us where we need to go.

Despite the drawbacks of a VPA, the TC largely supported its continued use as one method in an assessment. This decision recognized the fact that VPA does provide a lot of valuable information and that relying on just one model could backfire. Also, because the TC has used VPA in the past, people will expect it to be done again, even if it doesn't provide useable results for the most recent years. There was also agreement that there are certain things that the TC can improve in the VPA and aspects that the TC hasn't probed in the model yet. For example, some older fish are being collected in sampling which could help to improve the catch-at-age.

Statistical catch-at-age modeling was also discussed. This type of modeling was used once by Janaka deSilva, but would require a lot of exploratory work. Models of this type allow for the existence of errors in the catch-at-age and can be either forward or backward projecting. A limitation might be the number of selectivity periods that can be modeled, which would influence how M is modeled (constant or not). The use of a length-based assessment was also suggested, but it might mean having to model M as constant. A stage-based model used for crab might allow a little more flexibility because it is a bit simpler. An index-based assessment was also mentioned.

The TC also discussed some of the input indices. Some TC members thought that the NEFSC trawl data should not be used except as an index of recruitment maybe, while others thought it had potential if improved (working paper from Jeff Brust). Although providing a coastwide extended time series in the last assessment, the MRFSS survey was discussed as a potential pitfall. The data could be corrupted as stock size goes down or if there are changes in the sampling methodology. As is, the survey fails to pick up fishing at night (ex. NY). There was concern that intentional misreporting might increase as regulations tighten on other species or if trust in the survey's accuracy decreases. On the other hand, MRFSS has a large sample size for the catch rate estimates (thousands of interviews per state per year). The two adult indices from DE and NJ provide long-term age structure, but may not be representative of the whole stock. The ChesMMap survey was suggested as a possible index as more years' data are collected.

A tagging program was suggested as a potential research project to gain a better understanding of the timing and direction of adult weakfish movement. The peer review panel had suggested such a program. This could test one hypothesis that older fish from the Delaware Bay migrate farther north in the spring and hedge their spawning. This wouldn't necessarily lead to a tag-based assessment for weakfish, but would provide information on stock structure, movement, growth rates, etc. Low tag returns were mentioned as one concern. Delaware Fish and Wildlife has been conducting experiments with Delaware State University on tag retention of various types of tags and has begun tagging weakfish in Delaware Bay.

## Discuss the need for sampling requirements and the possibility of a north-south split

The TC agreed that the sampling requirements should not be eliminated at this point, even if a non age-based assessment in used next. Doing so would create a gap in the data, which would be a danger if the TC returned to age-based modeling.

The TC was unclear as to how a north-south split would work since the three most southern states are *de minimis* and not required to sample. The TC assumed that such a split would be at Cape Hatteras as has been suggested for stock assessments before. Lee reported that a couple thousand of the 7-8,000 lengths collected by North Carolina in an average year are probably collected from south of Cape Hatteras. The TC was unclear exactly what the Board was trying to get at in suggesting the split. The TC determined that it supported the current sampling requirements in Addendum I and that if a state wants to recommend a split it should put together a proposal for the TC to review and provide guidance to the Board on.

## **Provide advice for ASMFC Otolith Collection Program**

Staff presented the Commission's 2007 Action Plan Task to "work with the states to develop a cooperative program to collect otoliths to improve weakfish and striped bass assessments" and asked for TC recommendations for such a program. It was determined that the task originated several years ago when more ages were thought to be of use to weakfish stock assessment. The TC agreed that an otolith collection program is no longer necessary or desired for two reasons: 1) Addendum I was approved and the states have invested time, effort, and money to come into compliance with the otolith collection requirement; and 2) the TC is comfortable with the number of otoliths being provided for stock assessment efforts.

## Discussion on model selection for the next assessment

Several members of the TC brought forward a concern of uncertainty as to how to move forward towards the next assessment following the outcome of the previous stock assessment. While the peer review panel did not endorse the conclusions of the 2006 stock assessment, the Board appears to have accepted the stock assessment because it accepted the TC's five stock conclusions for management use. However, the Board has not passed a specific motion to that effect. To some, this left the TC in a predicament. While the Commission's benchmark assessment guidelines provide a procedure for dealing with assessments not endorsed by a peer review panel, it does not provide guidance for moving forward from an assessment not supported by peer review but for which additional work was completed as tasked, and then used as the basis for management. Essentially the weakfish stock assessment has exposed a flaw in the stated procedure.

Uncertainty was also expressed about what models should or could be used in the next assessment, because 1) the peer review panel did not approve any of the multiple modeling methods used in the stock assessment; 2) some of the reasons provided by the peer review panel for not supporting particular approaches were not scientifically based; 3) the peer review panel provided very limited advice as to how to improve the assessment methods; 4) the harshness of the panels' report suggested that no assessment could have passed the review; and 5) there is no guidance at the outset as to what level of proof must be attained for a peer review panel to endorse an assessment's conclusions. In particular there was a question as to whether the Steele-Henderson model should be used because the panel did not support it and because another species' TC had discussed not using the model because of the weakfish stock assessment. The overriding concerned was how the panel's report would be looked at and what role it would play in the next assessment's peer review.

It was therefore suggested that the TC specifically ask the Board at the next meeting if it would accept the 2006 stock assessment or take a more formal position on it. Some TC members disagreed with this idea because the Board does not seem inclined to do this, and asking the

Board to accept the stock assessment over the peer review would put the Board in the position of choosing one technical group's scientific advice over another's, a scenario that the Board is not designed to handle. Similarly, asking the Board to support a particular model would not be appropriate because that is a technical question for the TC rather than any management group. The Board does also not seem inclined to task another group with a review of the weakfish assessment process, as was also suggested. The TC agreed that because the panel did not specifically review and refute any of the models (except an erroneous statement about the Steele-Henderson model) that there was no basis for the TC to rule out the use of any model.

Several TC members thought that the Board did not need to be involved again and that the TC should proceed as usual and pick the best assessment methods for the available data. A peer review panel does not reject a model itself, but rather the use of the model, the data used in a model, or the appropriateness of that model for a particular stock. Lack of support for a model once does not preclude its use again if identified deficiencies are addressed and some improvements are made. The TC agreed that for whatever models are used in future assessment the reasons why must be spelled out very clearly. Some TC members were still uneasy about moving forward without the Board better articulating its view on the assessment and peer review. Without some guidance, it was thought that the last assessment could present a large burden on future stock assessments. Several TC members thought that this could be addressed by modification to the ASMFC policy for benchmark stock assessments, or that the TC's dilemma should first be presented to the Management and Science Committee and the Assessment Science Committee for advice on how to proceed.

In the end, the TC agreed that Russ Allen would present the following statement to the Board: "The TC and SASC want to continue to evaluate the weakfish stock with methodologies from the past assessment and new methodologies as necessary. None of the many methodologies used in the last assessment were endorsed by the peer review; however, the Board has accepted the 5 findings of the assessment in Addendum II and in the 2006 FMP Review. In preparation of the next assessment, the TC would like more guidance from the Board as to whether the Board accepts the TC's plan to use these methodologies for future assessments."

It was also determined that the executive summary attached to the 2006 stock assessment compilation document will be reviewed and modified if necessary to indicate the Board's response in May to the above statement or to better explain the overall outcome of the weakfish assessment. Showing that the Board used some points from the last assessment for management advice helps to justify the continued application of the methods used.

The TC also determined that it will provide recommendations for the ASC as to how to improve the benchmark stock assessment guidelines document and the peer review process. Russ Allen, as TC chair and a member of the MSC, will be in charge of this. Suggestions will include:

- Reviewers should be required to provide advice for improvement for any parts of the assessment that they do not approve.
- There should be some level of criteria when writing the report that the peer review panel is required to meet. This could be a set of leading questions, for example: what was the primary model, was it useful, why or why not; were there supplemental models, were they useful, why or why not.

- Guidelines should provide a policy direction or procedure for what should be done when this
  scenario happens (when the stock assessment is not accepted, but the Board asks for more
  work and that is used for management decision).
- The Board should have a more formal decision making process for times of uncertainty, such as when a peer reviewed assessment is lacking or when an assessment presents several possible stock scenarios.
- Reconsider the 5% natural mortality rule, because it is not scientifically based. Models that use variable M should not be put under more scrutiny than assessments with constant M.

## **Next Assessment Planning**

Currently, the next weakfish stock assessment is not on the ASC's stock assessment schedule, although the date of 2009 has been suggested for the next benchmark assessment (five years from the last assessment's original completion data of 2004). The TC would prefer to move the assessment up to 2008 in light of the last assessment's outcome and taking into account the time requirements for data and model improvement (ex. discard estimates and constructing the catchat-age will take some time). The TC developed a draft timeline for an assessment including data through 2007 based on being able to schedule a venue for the fall of 2008. The TC suggested SEDAR or SARC for the venue. Jeff Brust will serve as the main data compiler for the assessment.

DATE	OBJECTIVE
April 2007	Technical Committee Meeting: planning for next assessment
Ongoing	SASC working to address deficiencies identified in past assessments
September 2007	<b>Develop Terms of Reference.</b> Tentative SASC Meeting: fall TC meeting week
October 2007	Board approves Terms of Reference
Ongoing	SASC prepares preliminary analyses and develops working papers and brief presentations on the submitted data sets (data through 2007) and the surveys/data collection methods to bring to Data Workshop (all compiled on CD).
July 2008	Data Workshop
August 2008	Workshop products finalized by the TC via e-mail for tasks requiring follow-up (finalized materials submitted to assessment workshop participants)
August 2008	Report to Board on Progress
August – September 2008	Lead modelers develop documents describing reasoning and methodology of proposed assessment techniques
September 2008	Assessment Workshop
October 2008	Stock Assessment Report completed and submitted to TC for approval
November 2008	TC approves Stock Assessment Report
December 2008	Peer Review Workshop
February 2009	Board approves Stock Assessment Report and Peer Review

As there was no other business on the table, the Weakfish Technical Committee Meeting adjourned early on Tuesday, April 17.