



Mid-Atlantic Fishery Management Council

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Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

DATE: 30 March 2016

TO: Richard B. Robins, Jr., MAFMC Chairman

FROM:  John Boreman, Ph.D., Chair, MAFMC Scientific and Statistical Committee

SUBJECT: Report of the March 2016 Meeting and Follow-up Webinar of the MAFMC SSC

The SSC met in Baltimore, MD, on 15-16 March 2016 for the main purpose of reviewing ABC recommendations for Golden Tilefish and determining the best way forward for developing an ABC recommendation for Blueline Tilefish in the mid-Atlantic region. The SSC also received and discussed a review panel report on stock structure related to the upcoming Black Sea Bass assessment, an SSC working group outline for developing consistent and scientifically-justified probability distribution functions for overfishing limits of mid-Atlantic stocks, and discussed future membership composition for the SSC. The final meeting agenda is attached (Attachment 1). Note that a follow-up webinar on 29 March 2016 was necessary to continue discussion of and finalize the ABC recommendation for Blueline Tilefish.

A total of 8 SSC members were in attendance on March 15th, 10 on March 16th, and 12 on March 29th, which constituted a quorum on all three days (Attachment 2). Also in attendance were staff from the NMFS Northeast Fisheries Science Center (by phone), and staff from the Council, NMFS Headquarters, the fishing industry, and the general public. Documents cited in this report can be accessed via the MAFMC SSC website (<http://www.mafmc.org/ssc-meetings/2016/march-15-16>).

Golden Tilefish

The SSC received the following background documents related to Golden Tilefish prior to the meeting: the 2016 Tilefish Fishery Performance Report and associated 2016 Golden Tilefish Advisory Panel Information Document prepared by Council staff; the Golden Tilefish Data Update Through 2015, provided by the Northeast Fisheries Science Center; and the Council staff memo on 2017 Golden Tilefish Specifications.

José Montañez reviewed the background documents for the SSC. Since the ABC for 2017 is part of a three-year recommendation already specified by the SSC, the SSC discussed whether or not any revisions to the 2017 ABC specification are necessary. The SSC noted that better accounting of the recreational catch of Golden Tilefish would be useful. Currently, there are estimates of recreational catch of Golden Tilefish based on vessel trip reports, so the party/charter component of the catch is fairly well estimated; information from the large pelagic species survey indicates that catches are in the neighborhood of 500 to 1000 fish per year. However, information is lacking that describes catch and

effort in the private recreational fishery. The upcoming amendment to the Golden Tilefish FMP includes a provision for data collection for Blueline Tilefish, which may have ancillary benefits with respect to estimating catch of the recreational component of the Golden Tilefish Fishery.

The SSC noted the unusual pattern and variability (four fold) in the catch-per-unit-effort (CPUE) index, which is of concern. There was also concern expressed by participants in the commercial tilefish fishery about the expanding recreational component in this fishery. They concluded that there appears to be expanding effort in both the head boat and private boat fleets who fish for tuna or mahi and also drop on tilefish. The industry members present at the SSC meeting also expressed concern that some of the private catch is being sold.

The SSC discussed the spatial distribution of the stock and fishery. One major question is whether or not there has been a change in the distribution of commercial fishing effort by area. Industry members attending the SSC meeting responded that some areas are saturated with lobster gear offshore and that these areas are not accessible to the commercial tilefish fleet industry. They also noted that CPUE has always been variable throughout the history of the fishery, and lack of participation by all boats, market conditions, and bad weather could have all contributed to the decline in CPUE in 2015. The variability in CPUE could also reflect pulses in recruitment – the industry is currently seeing younger fish. The SSC noted that there could be two large year classes coming into the fishery, followed by a sharp decline in recruitment, but the change in CPUE is not what you would expect. It might also be useful to look at the size and age distribution of the stock in the updated assessment being planned for next year.

Based on the lack of any compelling evidence to the contrary, however, the SSC concluded that there was no basis to change its ABC recommendation for fishing year 2017.

Criteria for OFL CV Specification

An SSC working group was established at the September 2015 SSC meeting to begin developing criteria for using different overfishing limit (OFL) coefficient of variation (CV) levels for SSC-modified OFL probability distribution (formerly Level 3) stocks. In general, the Council's risk policy and ABC framework have worked relatively well in cases where adequate information is available. The SSC established a default 100% CV for stocks in this category, but has set lower CVs (60%) for individual stock assessments with improved consideration of uncertainty. The Council has concerns about a lack of transparency in how levels of CV below hundred percent were chosen by the SSC; the Council would welcome a more structured approach by the SSC. The Council is currently reviewing its risk policy and this work dovetails nicely with the SSC's effort.

The working group developed and circulated a draft outline for establishing the criteria prior to the SSC meeting (see the web link provided above). Sarah Gaichas walked the SSC through the draft and led the subsequent discussion.

Although this work is still in progress, SSC discussion framed a potential process to be outlined in more detail in a working paper. Reasonable upper and lower bounds for the OFL CV would be established based on research results, and assessment teams would be encouraged to address a specified list of uncertainties. The working group suggested 36% as an initial starting point the lower bound of OFL CV, based on Ralston et al.'s (2011) recommendation for a "best case" for West Coast fish stocks. The upper bound could remain the default OFL CV of 100%, based on the meta-analysis by Mike Wilberg that has been used by the SSC to date. Categories could then be established within these bounds, preferably no more than two. These categories would reflect intermediate levels of uncertainty in OFL.

To determine how to align stock assessments with OFL CV categories, several options are available and will be explored. One would assign stock assessment to a higher or lower OFL CV category if it quantified fewer or more, respectively, of the specified uncertainties within the assessment. [If all specified uncertainties were quantified within the assessment and the resulting assessment-estimated OFL CV fell between the reasonable upper and lower bounds, that CV would likely be accepted and the stock would then be in either (formerly) Level 2 or Level 1.] Another approach would be to define a best possible OFL CV that an assessment could produce and then compare each assessment under evaluation to that standard. In other words, compared to the best possible assessment, how many criteria does any particular assessment meet? Thus, a framework would be established that would set tiers of CVs between the upper and lower bounds. Ralston et al. (2011) used life history attributes to help establish appropriate tiers of CV, based on the premise that one would expect different levels of CVs based on life history types. A retrospective analysis of forecast error might also be a means for developing a CV tier within the pre-set bounds. Whatever means is used by the SSC to establish tiers of CV values, the basis for the tiers needs to be communicated to the scientists developing the stock assessments so that information contained in the assessment can be used by the SSC.

The SSC concluded that a list of assessment uncertainties that fully characterize the OFL CV should be developed and communicated clearly to the Northeast Fisheries Science Center. Assessment scientists at the Center could then evaluate the list to determine what is feasible. The CV subgroup will start with the list provided in the second paragraph of the draft outline prepared by the working group and then add to that list as part of a white paper, which the SSC will review at its next meeting.

Reference Cited

Ralston, S., Punt, A. E., Hamel, O. S., DeVore, J. D., and Conser, R. J. 2011. A meta-analytic approach to quantifying scientific uncertainty in stock assessments. *Fishery Bulletin*, 109: 217–232.

Black Sea Bass Review Panel Report

It is anticipated that the Southern Demersal Working Group will complete a new assessment for Black Sea Bass by the end of 2016. A central issue for the team conducting this new assessment will be to respond to concerns raised in the SARC panel report concerning the most recent benchmark assessment. Accordingly, the chair of the Southern Demersal Working Group (SDWG, John Maniscalco) and the chair of the Stock Assessment Workshop (SAW; Dr. James Weinberg) requested that the Mid-Atlantic Fishery Management Council's Scientific and Statistical Committee (SSC) provide a critical review of the SDWG's January 2016 report, which proposed a partitioning of the northern Black Sea Bass stock for the purposes of trying to develop assessment models that incorporate stock spatial structure.

In response to this request, the SSC formed a four-member *ad hoc* review panel comprising Drs. Thomas Miller (Vice Chair, SSC), Robert Latour (SSC), Katie Drew (Atlantic States Marine Fisheries Commission), and John Wiedenmann (Rutgers University). The Review Panel was charged with a single term of reference:

Determine whether the spatial partitioning of the black sea bass stock proposed by the BSB SAW WG is reasonable and appropriate to use as a starting point for developing stock assessment models. In making this determination consider whether available scientific data have been taken into account and analyzed properly, and whether the conclusions based on those data are reasonable given the current fisheries data.

On 16 February 2016, the Review Panel received a copy of the Working Group's report (SAW/SARC

Black Sea Bass Working Group, 2016) developed as result of its 16 December 2015 meeting. The Review Panel met with the Working Group assessment lead (G. Shepherd, NOAA Fisheries NEFSC), the chair of the SDWG, and the chair of the SAW on 23 February 2016 to receive a briefing of the Working Group's recommendations of a proposed spatial segregation of the Black Sea Bass stock. The Review Panel considered four components of its charge in reaching its conclusions: (1) justification for the spatial structure; (2) inclusion of data; (3) data analysis, and (4) appropriateness of conclusions.

The Review Panel concluded that the separation proposed by the Working Group into a northern and southern sub-unit of the northern stock of Black Sea Bass, with a dividing line approximating the position of the Hudson Canyon, is reasonable and appropriate to use as a starting point for developing stock assessment models. However, the Review Panel noted that the justification is not based on overwhelming biological evidence of a difference in stock characteristics north and south of this dividing line. The principal justification for the division is a parsimonious one – in that it provides sufficient data in both putative sub-units for parameter estimation in stock assessment modeling while aligning broadly with potential physical and biological characteristics related to life history characteristics and life history trajectories.

The SSC concurred with the findings of the Review Panel and noted that the division into sub-units is not necessarily based on biology of the species, so caution should be used in any interpretation of conclusions drawn based on the division. The next step is for the SAW/SARC Working Group to develop catch data time series by sub-unit, while simultaneously developing a simulated data set to formulate an assessment model. The Working Group will conduct a data meeting in late spring, and the model meeting will occur during the summer. The SSC emphasized that the first Term of Reference (TOR 1) for the upcoming SAW/SARC review, which relates to the potential influence of stock structure on the assessment outcome, is not finished. Although the Working Group now has a working definition of a northern and southern sub-unit that has been supported by the Review Panel and SSC, the Working Group still needs to explore the implications of this putative stock structure on the assessment outcome (the second part of TOR 1).

Reference Cited

SAW/SARC Black Sea Bass Working Group. 2016. Proposed partitioning of the northern black sea bass stock for purposes of developing spatial stock assessment models. 33 pp.

SSC Membership

The Council is seeking feedback from the SSC on which scientific disciplines should be considered in filling three SSC vacancies that currently exist. Based on the Council's work plan for the upcoming year, Council Chairman Robins suggested that scientists with expertise in ecosystems modeling and risk assessment be considered along with adding additional expertise in stock assessments. If the SSC will be getting more involved in management strategy evaluations, then expertise in social sciences will also be needed. SSC members also identified the need for expertise in: biological sciences beyond stock assessment; oceanography coupled with ecosystems and habitat ecology; and larval fish ecology.

The SSC members agreed that social sciences should be fully integrated into the SSC, rather than be treated as a separate entity. Additional social sciences expertise would be useful if the SSC is going to be asked to become more involved in management strategy evaluations, adding economic performance measures to data-limited approaches to setting ABCs, assessing the effects of climate change on the fishing sector, and determining how to use research set-aside funding to address science and

management needs more effectively.

Chairman Robins agreed to provide the SSC with questions that the Council could be asking the SSC to address in the near future, based on the Council's visioning document and annual work plan. The SSC can then provide the Council with the types of scientific expertise that would round out the SSC's current expertise to help address the anticipated questions.

Blueline Tilefish

The MAFMC requested the SSC to form a working group to evaluate knowledge of the status of Blueline Tilefish in mid-Atlantic waters. The Working Group was given the following term of reference:

TOR #1. Review data-poor approaches that can (or cannot) be used for developing an ABC for Blueline Tilefish north of NC. Based on the review, the SSC will then determine what data-poor method is most suitable to use.

The SSC Working Group appointed to review the approaches on data-poor approaches to establish catch advice for Blueline Tilefish comprised Thomas Miller (Working Group Chair, and Vice Chair MAFMC SSC), Michael Schmidtke (Old Dominion University), Cynthia Jones (MAFMC SSC), and David Tomberlin (MAFMC SSC).

The SSC Working Group applied DLMTTool to Blueline Tilefish in the mid-Atlantic. A full description of the approach used by the Working Group, including the data and life history characteristics used and evaluation of the model outputs, is included in the memo from the chair of the Working Group to the chair of the SSC (Miller 2016). A similar approach has been used previously by the SSC in developing ABC advice for Black Sea Bass, based on an analysis by McNamee et al. (2015). In its review of the McNamee et al. report, a sub-committee of the SSC noted that, as applied in the McNamee et al. (2015), DLMTTool conflated the two approaches to establishing ABCs identified in the MAFMC's Risk Policy regarding the ability to estimate an OFL (Miller et al., 2015). In considering the application of DLMTTool to Blueline Tilefish, the SSC recommends maintaining a clear distinction between those DL management procedures that estimate OFL and those that provide a direct estimate of ABC.

Application of DLMTTool is a two-stage process. In the first stage, a simulation model is used, which represents the species under consideration, its fisheries, and sampling. The simulation model is used to compare the performance of alternative DL management procedures. Using predetermined measures of performance, DL management procedures for application to the species under consideration are selected based on the simulation model results. In the second stage, OFL and/or ABC levels are calculated for the selected DL management procedures.

The Working Group considered Blueline Tilefish as a supporting a single sub-unit of the stock north of the NC/VA border. No spatial differences or refuges from fishing were defined. The simulation model was parameterized with information from samples of Blueline Tilefish taken in the Norfolk Canyon area (Schmidtke et al. 2015). Preliminary modeling indicated that 14 management procedures could be developed from the data available for Blueline Tilefish in the mid-Atlantic. Based on performance measures determined before simulations were conducted (i.e., a $P(\text{overfishing}) < 50\%$, $P(\text{overfished}) < 50\%$, and relative yields between 30 – 100%), only two management procedures were selected as the basis for providing ABC advice: (1) MCD (simple catch depletion method); and (2) MCD4010 (simple catch depletion method that employs the 40-10 harvest rule).

The Working Group also ran simulations employing increasing and constant effort scenarios. However, the same management procedures, MCD and MCD4010, were the only realistically implementable procedures that met the *a priori* selected performance measures, regardless of the effort scenario.

At its meeting on March 16th, the SSC reviewed a preliminary draft of the Working Group report and agreed that use of the DLMTool is the most appropriate approach for developing an ABC recommendation for Blueline Tilefish. The SSC also emphasized that the ABC would be for a sub-unit of Blueline Tilefish located in the mid-Atlantic region, and would not be applicable to the entire coast. The SSC noted several areas in the draft where additional details and clarification were needed to improve the document and decided to charge the working group with making those changes, then follow up with a webinar on March 29th to finalize the ABC recommendation.

During the webinar, Tom Miller walked the SSC through the changes that were made to the original draft Working Group report in response to the SSC's suggestions. Dr. Miller also noted that, after the revised memo was prepared, the Working Group reconsidered and decided to remove its application of a restriction on the amount of depletion the stock has undergone since the fishery developed, since no evidence is available to support such a restriction. This added two more management procedures that met the selected performance measures: average catch and average catch in the last five years. Thus, the SSC Blueline Tilefish Working Group recommended an ABC calculated as the average of the median ABCs derived from the average catch, average catch in the last five years, MCD, and MCD 4010 management procedures as **39,477 kg (87,031 lbs)**, which is slightly higher than the ABC value recommended in the 22 March memo. This value was accepted by the SSC during the 29 March 2016 webinar, and a revised memo reflecting changes to the original draft and the removal of the restriction on stock depletion will be posted to the SSC website.

SSC responses to the Council's terms of reference for Blueline Tilefish are, therefore, as follows:

For Blueline Tilefish (north of the Virginia-North Carolina border), the SSC will provide a written report that identifies the following for fishing year 2017 (1 November 2016 – 31 October 2017):

1) The level of uncertainty that the SSC deems most appropriate for the stock assessment information upon which the ABC determination was made, using the criteria listed in the Omnibus Amendment.

The SSC determined that the approach to estimating the ABC for Blueline Tilefish qualifies as a stock for which there is **no accepted OFL** (Level 4), and thus the SSC used methods that do not rely on biological reference points.

2) If possible, the level of catch (in weight) and the probability of overfishing associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold or, if appropriate, an OFL proxy.

No OFL could be calculated for this stock.

3) The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock.

The SSC recommends an ABC for 2017 of **39,477 kg (87,031 lbs)**. The ABC was calculated using the DLMTool as described in the SSC Blueline Tilefish Working Group report (Miller 2016).

4) The most significant sources of scientific uncertainty associated with determination of OFL and/or ABC.

- The model assumes that the Blueline Tilefish in MAFMC waters represents a distinct sub-unit with limited exchange with a sub-unit to the south. We have little information on rates of exchanges between fish in the two areas, and little information on which to make a determination of stock structure.
- The catch time series was developed from a Delphi method and remains uncertain
- The steepness of the stock recruitment relationship was based on estimates from the SEDAR 32 assessment and the Shertzer and Conn (2012) paper, but remains highly uncertain.
- The DLMTool assumes that the carrying capacity and productivity of Blueline Tilefish in MAFMC waters is constant. It is unclear whether the spatial expansion of the fishery since its inception represents increasing awareness of the fish as a target or increasing spatial range of its population as result of climate change (and hence increasing productivity).
- The SSC notes that the von Bertalanffy growth parameters are different between the northern sub-unit and the southern sub-unit.
- The extent of the depletion of the northern sub-unit is unknown and assumptions regarding the level of depletion influence the estimated ABC.
- The DLMTool cannot represent fisheries with substantially different selectivities, such as may be present in the recreational and commercial fisheries, which may affect the conversion of catch numbers to catch weight.

5) Ecosystem considerations accounted for in the stock assessment information presented, and any additional ecosystem considerations that the SSC took into account in selecting the ABC, including the basis for those additional considerations.

No data were available to allow the SSC to include specific ecosystem considerations in determining ABC.

6) Prioritized research or monitoring recommendations that would reduce the scientific uncertainty in the ABC recommendation and/or improve the assessment information level.

1. More accurate catch time series would be an important enhancement to estimating ABCs in the future.
2. The lack of fishery-independent sampling restricts both our understanding of the dynamics of the stock and the range of management procedures that can be applied in estimating ABC.
3. The nature of stock structure within Blueline Tilefish is necessary to determine connectivity among sub-units within the spatial range of this species; this could include exploring the potential of larval exchange through an examination of EcoMon and other data sources. The selectivity of the commercial fishery in the northern part of the range needs to be determined
4. The value of the steepness of the stock-recruitment relationship is uncertain and warrants further investigation.
5. The SSC notes that the von Bertalanffy growth parameters are different between the northern sub-unit and the southern sub-unit and warrant further exploration.

7) The materials considered in reaching its recommendations.

The information used by the Working Group in developing this recommendation is fully documented in

the SSC Blueline Tilefish Working Group report. In addition, the SSC referred to the following documents during its discussion:

- Allen, T., A. Loftus, and R. Southwick. 2016. Estimated catch of Blueline Tilefish in the Mid-Atlantic Region: application of the Delphi process. Southwick Associates, Fernandina Beach, FL. 19pp.
- Carruthers, T. R., A. E. Punt, C. J. Walters, A. MacCall, M. K. McAllister, E. J. Dick, and J. Cope. 2014a. Evaluating methods for setting catch limits in data-limited fisheries. *Fisheries Research*, 153: 48-68.
- Carruthers, T. R., A. E. Punt, C. J. Walters, A. MacCall, M. K. McAllister, E. J. Dick, and J. Cope. 2014b. Supplemental material: Evaluating methods for setting catch limits in data-limited fisheries. *Fisheries Research*, 153: 48-68: Supplement.
- Didden, J. 2016a. Memo to Chris Moore, dated 23 February 2016, entitled: "Blueline Tilefish Catch Time Series." 5pp.
- Didden, J. 2016b. Memo to Chris Moore, dated 14 March 2016, entitled: "Blueline Tilefish Catch Time Series." 2pp.
- McNamee, J., G. Fay, and S. X. Cadrin. 2015. Data Limited Techniques for Tier 4 Stocks: An Alternative Approach to Setting Harvest Control Rules Using Closed Loop Simulations for Management Strategy Evaluations. 57 pp.
- Miller, T. J. 2016. Memo to John Boreman, Chair, Mid-Atlantic Fishery Management Council SSC, dated 22 March 2016, entitled: "Proposed BLT Subcommittee Report." 23pp.
- Miller, T. J., O. P. Jensen, J. Wiedenmann, and K. Drew. 2015. Review of the McNamee, et al. "Data Limited Techniques for Tier 4 Stocks: An Alternative Approach to Setting Harvest Control Rules Using Closed Loop Simulations for Management Strategy Evaluations. 7 pp.
- Schmidtke, M., K. Kirch and Jones, C. M. 2015. The population dynamics of blueline and golden tilefish, snowy and Warsaw grouper and wreckfish. Grant F-132-R-2, Report to Virginia Marine Resources Commission, February 18, 2015.
- Shertzer, K. W., and P. B. Conn. 2012. Spawner-recruit relationships of demersal marine fishes: prior distribution of steepness. *Bulletin of Marine Science*, 88: 39-50.
- Southeast Data Assessment and Review. 2013. South Atlantic blueline tilefish: stock assessment report. 378. Edited by South Atlantic Fishery Management Council. SEDAR, North Charleston, SC. 378pp.

8) A certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

cc: SSC Members, Lee Anderson, Chris Moore, Rich Seagraves, José Montañez, Jason Didden, M. Schmidtke, Paul Nitschke, Amy Schueller, Alexei Sharov, John Carmichael

Mid-Atlantic Fishery Management Council
Scientific and Statistical Committee Meeting
March 15-16, 2016

Agenda

Tuesday March 15, 2016

0900 Review Golden Tilefish Multi-year ABC Specification (Montañez /Nitschke)

1030 Report of CV Subgroup (Gaichas et al)

1200 Lunch

1300 BSB ToR 1 Review (Miller/Latour)

1600 SSC membership needs (Boreman/Seagraves)

Wednesday March 16, 2016

0900 Develop Blueline Tilefish ABC Specification (Miller/Didden/Schmidtke)

1200 Other business

1300 Adjourn

MAFMC Scientific and Statistical Committee
15-16 March 2016 Meeting
Baltimore, MD

<u>Name</u>	<u>Affiliation</u>	
<i>SSC Members in Attendance:</i>		
John Boreman (SSC Chairman)	NC State University	
Tom Miller (SSC Vice-Chair)	University of Maryland - CBL	
David Tomberlin	NMFS Office of Science and Technology	
Doug Lipton (3/16 only)	NMFS	
Mark Holliday	NMFS (Retired)	
Cynthia Jones (3/16 only)	Old Dominion University	
Mike Frisk	Stony Brook University	
Sarah Gaichas	NMFS Northeast Fisheries Science Center	
David Secor	University of Maryland – CBL	
Brian Rothschild	UMass – Dartmouth	
<i>Others in attendance:</i>		
Rich Seagraves	MAFMC staff	
José Montañez	MAFMC staff	
Rick Robins	MAFMC Chair	
Jason Didden (3/16 only)	MAFMC staff	
Paul Nitschke (by phone, 3/15 only)	NMFS Northeast Fisheries Science Center	
Gary Shepherd (by phone, 3/16 only)	NMFS Northeast Fisheries Science Center	
Laurie Nolan (3/15 only)	MAFMC member	
Dan Farnum (3/15 only)	F/V Seacapture	
Stephanie Hunt	NMFS Office of Sustainable Fisheries	
Debra Lambert (3/16 only)	NMFS Office of Sustainable Fisheries	
Susanna Wingard Brian		
Michael Schmidtke (3/16 only)	Old Dominion University	
Alexei Sharov (3/16 only)	Maryland DNR (SAFMC SSC)	
Amy Schueller (3/16 only)	NMFS Southeast Fisheries Science Center (SAFMC SSC)	
Skip Feller (3/16 only)	Rudee Tours	
<u>29 March 2016 Webinar</u>		
<i>SSC members in Attendance:</i>		
John Boreman	Mike Frisk	Brian Rothschild
Tom Miller	Olaf Jensen	Doug Lipton
Mark Holliday	Rob Latour	Dave Secor
Ed Houde	Cynthia Jones	Sarah Gaichas
<i>Others in Attendance:</i>		
Alexei Sharov	Stephanie Hunt	Mark Terceiro
Amy Schueller	Chris Batsavage	Kate Wilke
Jason Didden	Chip Collier	
Rich Seagraves	Julia Byrd	
Michael Schmidtke	Mike Errigo	
Erin S.	Doug Potts	
Rich Seagraves	Rick Robins	