Preliminary Project Schedule

South Atlantic Black Sea Bass Assessment Update

Council and SSC approve TOR	Dec. 6-11, 2009
Data scoping call	July 22, 2010
~2 hours or less; who's got data, who's working it up	
*Conference call –update on data and data requests	Sept 7 or 8, 2010
Final data due to data compiler by	Sept. 15, 2010
Data spreadsheet posted to FTP by	~Oct 1, 2010
*Update webinar 1	Oct. 25, 26, or 27, 2010
~2-4 hours, base model run, sensitivity discussion, uncertainty	
*Update webinar 2	Nov. 12, 15, or 16, 2010
~2-4 hours, continue discussion on model, sensitivities, projections as needed	
*Update webinar 3	Nov. 19, 22, or 23, 2010
~2-4 hours, finalize model runs, discuss outputs from any sensitivity runs, projections	
*Update webinar 4,	Dec. 1, 2, or 3, 2010
~2-4 hours, wrap up any issues if needed	
Draft update report distributed to panel for review	Jan. 5, 2011
Panel revisions of update report due to assessment team	Jan. 14, 2011
Update report due to SSC	Jan. 24 or 31, 2011 (Jan 24 if SSC is week of Feb 7)
Update reviewed by SSC (Charleston, SC)	2nd or 3rd week of Feb., 2011
Presentation to SAFMC by SSC (St. Simons, GA)	March 7-11, 2011

* Would be noticed in the Federal Register

Draft Terms of Reference

South Atlantic Black Sea Bass

Update Assessment Workshop

1. Update the SEDAR-02 assessment of South Atlantic black sea bass with data through 2009 and with reference to the 2005 assessment update.

2. Document any changes or corrections made to input datasets, all additional data added for the update, and any modifications applied to the additional data.

3. Document and include rationale for any changes in assessment methodology incorporated in this update.

4. Estimate and provide complete tables of stock parameters, including but not necessarily limited to the following:

   - Population abundance at age
   - Population biomass reported in pounds
   - Spawning stock biomass reported in pounds
   - Fishery selectivity at age and size
   - Fishing mortality at age
   - Yield
   - Stock–recruitment relationship

5. Update measures of uncertainty and provide representative measures of precision for stock parameter estimates. Determine and document in what way the peculiar life history patterns of this species add to uncertainty in stock parameter estimates.

6. Update estimates of stock status and SFA parameters and provide declarations of stock status relative to SFA criteria. The following quantities are to be provided as required for Amendment 15A to the snapper-grouper FMP:

   - MSY (pounds, to the pound)
   - MFMT = *F*MSY
   - FOY and OY based on: 75% of *F*MSY; (pounds to the pound)
   - MSST, based on *(*1−*M)*SSBMSY, (pounds to the pound). (Preferred is 75%.)
   - Bcurrent/MSST and Fcurrent/MFMT

7. Evaluate future stock status and rebuilding progress using the following criteria:

   - Evaluate progress toward stock rebuilding and the target 10 year rebuilding period ending in 2016.
   - Evaluate whether changes in the TAC (currently 847,000 pounds whole weight) are warranted within the constraints of the rebuilding target. Determine the maximum constant landings that will allow the stock to rebuild by 2016 and estimate the associated fishing mortality rate.
   - Estimate the date of stock rebuilding and the resultant exploitation rate, based on maintaining the current TAC.

- Provide a probability analysis for the status quo and updated rebuilding schedules.

Caveats:

– Any management changes should be assumed to take effect 1/1/2012

– Exploitation during the period between the terminal year of the assessment (2009) and 1/1/2012 should be assumed equal to the average of the last 3 years estimated in the assessment (2007-2009).

8. Review the research recommendations from the previous assessment and update, note any which have been completed, and make any necessary additions or clarifications. Provide details regarding sampling design, sampling strata and sampling intensity under current exploitation allowances that will facilitate collection of data that will resolve identified deficiencies and impediments in the 2005 assessment.

9. Develop a stock assessment workshop report in SEDAR format to fully document the input data, methods, and results of the stock assessment update. The report shall be provided to the SAFMC no later than *November 1, 201*0.

SEDAR

South Atlantic Black Sea Bass
Update Participants
2010

Kari Fenske, SEDAR Coordinator

Appointee	Function	Affiliation
ASSESSMENT PANELISTS		
John Boreman	SSC Rep	SA SSC
Zack Bowen	Charter/Headboat, GA	SAFMC SG AP
Bobby Cardin	Commercial, FL	
Chip Collier	SSC Rep	SA SSC/NC DMF
Andrew Cooper	SSC Rep	SA SSC
Andy High	NC Commercial	
Kenny Fex	Commercial, FL	SAFMC SG AP
Frank Hester	Consultant	Southeast Fishery Assoc.
Amy Schueller	Lead Analyst	SEFSC Beaufort
Kyle Shertzer	Analyst	SEFSC Beaufort
Marcel Reichert	SSC Rep	SA SSC/SC DNR
Doug Vaughan	Analyst/Data compiler	SEFSC Beaufort
Erik Williams	Analyst	SEFSC Beaufort
COUNCIL REPRESENTATIVES		
George Geiger	Council Member	SAFMC
Charles Phillips	Council Member	SAFMC
COUNCIL AND AGENCY STAFF		
Ken Brennan	Recreational Data Leader	SEFSC - Beaufort
John Carmichael	Fishery Scientist	SAFMC Staff
Rick DeVictor	Lead Fishery Scientist	SAFMC Staff
Rachael Lindsay	Administrative Assistant	SEDAR
Jack McGovern	Fishery Scientist	SERO
Julie Neer	Coordinator	SEDAR
Andy Strelcheck	Fishery Scientist	SERO
Gregg Waugh	Fishery Scientist	SAFMC Staff

(6-3-10)

South Atlantic Update Stock Assessments*

Workshop Participants

Acronyms

AP .....Advisory Panel
NMFS.....National Marine Fisheries Service
SAFMC.....South Atlantic Fishery Management Council
SA……...South Atlantic
SEDAR .....Southeast Data, Assessment, and Review
SEFSC.....Southeast Fisheries Science Center, NMFS
SERO ..... Southeast Regional Office, NMFS
SG .....Snapper / Grouper
SSC ..... Science and Statistics Committee
TBN.....To be named

Preliminary Project Schedule
Gulf and South Atlantic Spiny Lobster Assessment Update

• SA Council and SSC approve ToRs	December 6-11, 2009
• SA Council approves participants	December 11, 2009
• Gulf SL SSC approves ToRs	January 20-22, 2009
• Gulf Council approves ToRs and participants	February 1-4, 2010
• Data scoping webinar	March 23, 2010
• Preliminary data through 2008 compiled by	April 22, 2010
• Base run model adjustments developed	May 1 to June 18, 2010
• Final data through 2009 compiled by	June 1, 2010
• Update Webinar 1 – finalize data; preliminary model discussion	June 22, 2010
• Update Webinar 2	July 13, 2010
• Update Webinar 3	July 27, 2010
• Draft update report distributed by team for review	August 11, 2010
• Update Workshop	August 23-25, 2010
• Update Webinar 4	September 8, 2010
• Update Workshop report sent to council staff for SSC	October 18, 2010
• Update Review - joint Gulf SSC and SA SSC	November 15-19, 2010
• Update received by SAFMC	December 6-10, 2010
• Update received by GMFMC	February 7-11, 2011

(2-19-10)

Southeast Spiny Lobster

Update Stock Assessment

Workshop Participants

September 28-30, 2010

Key West, Florida

Assessment Panel

Doug Gregory (Chair)	GMFMC SSC
John Hunt	GMFMC SL SSC
Anne Lange	SAFMC SSC
David Eggleston	SA, Researcher
Karl Lessard	GMFMC SL AP
Simon Stafford	GMFMC SL AP
Tony Iarocci	SA, Commercial
Bob Burton	SAFMC SL AP, Recreational
Nelson Ehrhardt	SAFMC Appointee

Analytic Team[†]

Bob Muller, Lead Analyst	FWRI
Joseph Munyandorero, Analyst	FWRI
David Chagaris, Analyst	FWRI

Appointed Observers

Mark Robson	SAFMC Council Member
Bill Teehan	GMFMC Council Member
Sue Gerhart	SERO
Kate Michie	SERO

Staff

Carrie Simmons – GMFMC Lead Fishery Scientist	GMFMC
Gregg Waugh – SAFMC Lead Fishery Scientist	SAFMC
Julie A Neer	SEDAR
Tina O'Hern	GMFMC Staff

July 26, 2010

Participants List for Spiny Lobster Update Review
Updated 17 June 2010

Review Workshop

Appointee	Function	Affiliation
Review Panel		
Doug Gregory	Review Panel Chair	GMFMC SSC/FL SeaGrant
Walter Keithly	GMFMC SSC Reviewer	LSU
	SAFMC SSC Reviewer	
Luiz Barbieri	SAFMC SSC Reviewer	FWRI
Carolyn Belcher	SAFMC SSC Reviewer	GADNR
Analytical Team Representation		
Bob Muller	Lead analyst	FWRI
Joseph Munyandorero	Analytic support	FWRI
Official Observers		
Rene Buesa	GMFMC AP	
Council Representation		
Mark Robson	South Atlantic Council Member	SAFMC
Bill Teehan	Gulf of Mexico Council Member	GMFMC
Staff		
Julie A Neer	SEDAR Coordinator	SEDAR
Rachael Lindsay	Administrative Assistant	SEDAR
Carrie Simmons	Gulf of Mexico Council Staff Lead	GMFMC
Gregg Waugh	South Atlantic Council Staff	SAFMC
	IT Support	NMFS Miami
Other Observers		

Southeastern Spiny Lobster Assessment Update
Terms of Reference

Approved by the South Atlantic Fishery Management Council December 7-11, 2009.
Approved with modification by the Gulf of Mexico Fishery Management Council February 1-4, 2010.

Update Assessment Workshop - August 23-25, 2010

1. Update the SEDAR 8 assessment of Southeastern US spiny lobster, incorporating data through the end of the 2009-2010 Spiny Lobster Fishing Season. Prepare a continuity scenario and consider additional sensitivity runs to address assessment concerns raised since the benchmark.

2. Evaluate any relevant data and parameters to be included into the stock assessment model. This evaluation should be conducted with all relevant scientific input. Include life history, indices of abundance, and fishery data.

3. Evaluate the relative reliability of fishery dependent and independent data sources and adjust model input appropriately.

4. Update the approved SEDAR 8 Southeastern spiny lobster model base configuration with data through the 2009-2010 Spiny Lobster Fishing Season. Employ the SEDAR 8 SAR 3 statistical catch-at-age model (Integrated Catch-at-Age) as the base and the DeLury model as a check for consistency. The DeLury model used numbers of lobster and effort by fishing year extended back to the 1978-79 fishing year. Both models used fishery-dependent (observer and Biscayne National Park creel survey) and fishery-independent (puerulus and adult monitoring) tuning indices. Sensitivity runs included running the age-structured model with two lipofuscin growth curves and with two alternative natural mortality rates. Retrospective analysis will compare patterns in fishing mortality rates, recruitment, and population sizes relative to the base run results. Document any changes in assessment methodology incorporated in the update.

5. Document any changes or corrections made to input datasets, all additional data added for the update, and any modifications applied to the additional data. Tabulate complete updated input datasets. Provide tables of commercial and recreational landings and discard in the units used in SEDAR 8, SAR 3. Specify units of measurement in all tables.

6. Estimate and provide complete updated tables of stock parameters.

7. Update measures of uncertainty and provide representative measures of precision for stock parameter estimates. If possible, conduct a P* analysis as needed to determine ABC.

8. Update estimates of stock status and SFA parameters; provide declarations of stock status relative to current SFA criteria. Provide clear statements of stock status relative to 'overfishing' and 'overfished'. If a status of 'overfished' or 'overfishing' is determined, run the standard range of projections.

9. Specify OFL, and if possible, recommend a range of ABC for review by the SSC in compliance with ACL guidelines.

10. Evaluate and project future conditions for eleven years (2010-11 through 2020-21 inclusive) beyond the terminal year of the update (2009-10). Run at least these three projection scenarios: F = Fcurrent, F = Fmsy, and F = Foy

11a. **(Approved by SAFMC and GMFMC)** Review the research recommendations from SEDAR 8 SAR 3 (2005), note any which have been completed, and make any necessary additions or clarifications. Focus on those items which will improve future assessment efforts.

11b. **(Approved by SAFMC, only)** Provide details regarding sampling design, sampling strata and sampling intensity under current exploitation allowances that will facilitate collection of data that will resolve identified deficiencies and impediments in the 2005 assessment. Recommend sampling intensity in terms of the number of sampling events and appropriate elements in order to complete the ACCSP sampling design matrix.

12. Develop an update stock assessment workshop report in SEDAR outline to fully document the input data, methods, and results of the stock assessment update. Address these Terms of Reference. Submit the report to SEDAR no later than October 18, 2010. The report shall be provided to the GMFMC and the SAFMC no later than October 25, 2010.

SEDAR 23
Gulf of Mexico and South Atlantic Goliath Grouper
Schedule of Events

March 2010

TORS and Schedule Approved: ..... February/March 2010
Workshop Appointments Final: ..... February/March 2010

Data Workshop Deadlines

Data Scoping Conference Call (DW Panel): ..... *March 22-26, 2010*
DW Hotel Reservation Cut off: ..... March XX, 2010
DW Working Paper/Data Submission to SEDAR Staff: ..... April 9, 2010
Data Evaluation Workshop: (Saint Petersburg, FL)..... April 26 - 30, 2010
First draft of DW report complete..... April 30, 2010 (end of workshop)
Final DW Reports Complete & Distribution to AW Panel: ..... June 11, 2010
Final DW Data Spreadsheet Complete & Distribution to AW Panel: ..... June 11, 2010

Assessment Workshop Deadlines

AW Hotel Reservation Cut off: ..... July XX, 2010
Assessment workshop working papers submission: ..... July 16, 2010
Assessment Workshop: (Saint Petersburg, FL) ..... August 2 - 6, 2010
First draft of AW report complete..... August 6, 2010 (end of workshop)
Final AW Data Spreadsheet Complete: ..... October 22, 2010
Final Assessment Report to SEDAR staff ..... October 22, 2010

Review Workshop Deadlines

Review Workshop Hotel Cut-off: ..... October XX, 2010
RW Working Paper Submission: ..... November 1, 2010
Final distribution to review panel: ..... November 1, 2010
Pre-RW Conference Call (Analytical team, RW Chair) ..... November 8-12, 2010
RW Panel Introductory Conference Call (RW Panel, Chair)..... November 8-12, 2010
Review Workshop: (FL KEYS) ..... November 15 - 17, 2010
First Draft Review Reports:..... November 17, 2010 (end of workshop)
Review Workshop Panel Drafts due to Chair: ..... November 26, 2010
Review Workshop Addenda/Revision Reports due to Chair & SEDAR Staff: ..... November 26, 2010
Review Workshop Reports due to SEDAR Staff: ..... December 3, 2010
Complete Assessment Report Submitted to Councils/SERO/SEFSC: ..... December 6, 2010

Participants List for SEDAR 23
SA and Gulf Goliath Grouper
Updated 17 June 2010

Data Workshop Participants

Appointee	Function	Affiliation
Analytical Team Representation		
Joe O'Hop	Lead analyst	FWRI
Joseph Munyandorero	Analytic support	FWRI
Clay Porch	Analytic support	NMFS Miami
Life History Workgroup		
Bill Lindberg	Leader and Editor	Univ. of Florida
Alejandro Acosta	Data provider	FWRI
Jennifer Schull	Data provider	NMFS -
Angela Collins	Data provider	FWRI
Chris Koenig	Data provider	USF
Sarah Frias-Torres	Data provider	
Monica Lara	Data provider	FWRI
Luiz Barbieri	GMFMC SSC	FWRI
Catch Statistics Workgroup		
Joseph Munyandorero	Leader and Editor - Commercial	FWRI
Don Demaria	Industry rep – SAFMC AP	Keys/SG
Bob Zales	Industry rep – GMFMC AP	North Florida
Gregg DeBrango	Industry rep – SAFMC AP	
Rich Taylor	Recreational rep	
Indices Workgroup		
Walter Ingram	Leader and Editor	NMFS Pascagoula
Kevin McCarthy	Data provider	NMFS Miami
Adam Pollack	Data provider	NMFS Pascagoula
Data Management		
Joseph Munyandorero	Data compiler	FWRI
Council Representation		
Ben Hartig	South Atlantic Council Member	SAFMC
Ed Sapp	Gulf of Mexico Council Member	GMFMC
Staff		
Julie A Neer	SEDAR Coordinator	SEDAR
Rachael Lindsay	Administrative Assistant	SEDAR
Karen Burns	Gulf of Mexico Council Staff Lead	GMFMC
Tyree Davis	IT Support	NMFS Miami

Participants List for SEDAR 23
SA and Gulf Goliath Grouper
Updated 17 June 2010

Assessment Workshop

Appointee	Function	Affiliation
Joe O'Hop	Lead analyst	FWRI
Joseph Munyandorero	Analytic support	FWRI
Mike Murphy	Analytic support	FWRI
Additional Panel members		
Sean Powers	GMFMC SSC	Univ of Al
Anne Lange	SAFMC SSC	
Gregg DeBrango	SAFMC AP	
Don DeMaria	SAFMC AP	
Bob Zales	GMFMC AP	North Florida
Luiz Barbieri	Data provider	FWRI
Chris Koenig	Data provider	USF
Data Management		
Joseph Munyandorero	Analytic support	FWRI
Council Representation		
Ben Hartig	South Atlantic Council Member	SAFMC
Bill Teehan	Gulf of Mexico Council Chair	GMFMC
Staff		
Julie A Neer	SEDAR Coordinator	SEDAR
Tina O'hern	Administrative Assistant	SEDAR
Karen Burns	Gulf of Mexico Council Staff Lead	GMFMC
Rick DeVictor	South Atlantic Council Staff Lead	SAFMC
	IT Support	NMFS Miami

Review Workshop

Appointee	Function	Affiliation
Review Panel		
Luiz Barbieri	Review Panel Chair	SAFMC SSC/FWRI
	CIE Reviewer	
	CIE Reviewer	
	CIE Reviewer	
Shannon Cass-Calay	GMFMC SSC Reviewer	NMFS Miami

Participants List for SEDAR 23
SA and Gulf Goliath Grouper
Updated 17 June 2010

Barbara Dorf	GMFMC SSC Reviewer	TXPWD
	SAFMC SSC Reviewer	
Carolyn Belcher	SAFMC SSC Reviewer	GADNR
	Council Appointed Reviewer	SAFMC
	Council Appointed Reviewer	GMFMC
Analytical Team Representation		
Joe O'Hop	Lead analyst	FWRI
Joseph Munyandorero	Analytic support	FWRI
Official Observers		
Ben Fairey	GMFMC AP	
Council Representation		
Ben Hartig	South Atlantic Council Member	SAFMC
Kay Williams	Gulf of Mexico Council Member	GMFMC
Staff		
Julie A Neer	SEDAR Coordinator	SEDAR
Rachael Lindsay	Administrative Assistant	SEDAR
Karen Burns	Gulf of Mexico Council Staff Lead	GMFMC
Rick DeVictor	South Atlantic Council Staff	SAFMC
	IT Support	NMFS Miami
Other Observers		

SEDAR

SouthEast Data, Assessment, and Review

South Atlantic Fishery Management Council
Gulf of Mexico Fishery Management Council
Caribbean Fishery Management Council
NOAA Fisheries
Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission

4055 Faber Place Drive, Suite 201
North Charleston SC 29405
Phone (843) 571-4366
Fax (843) 769-4520

SEDAR 23. Gulf of Mexico and South Atlantic Goliath Grouper

March 2010

I. Data Workshop

1. Characterize stock structure and develop a unit stock definition. Provide maps of species and stock distribution.
2. Review, discuss and tabulate available life history information (e.g., age, growth, natural mortality, reproductive characteristics); provide appropriate models to describe growth, maturation, and fecundity by age, sex, or length as applicable. Evaluate the adequacy of available life-history information for conducting stock assessments and recommend life history information for use in population modeling.
3. Provide measures of population abundance that are appropriate for stock assessment. Consider and discuss all available and relevant fishery dependent and independent data sources. Document all programs evaluated, addressing program objectives, methods, coverage, sampling intensity, and other relevant characteristics. Provide maps of survey coverage. Develop CPUE and index values by appropriate strata (e.g., age, size, area, and fishery); provide measures of precision and accuracy. Evaluate the degree to which available indices adequately represent fishery and population conditions. Recommend which data sources are considered adequate and reliable for use in assessment modeling.
4. Characterize commercial and recreational catch, including both landings and discard, in pounds and number. Provide estimates of discard mortality rates by fishery and other strata as appropriate or feasible. Evaluate and discuss the adequacy of available data for accurately characterizing harvest and discard by species and fishery sector. Provide length and age distributions if feasible. Provide maps of fishery effort and harvest.
5. Provide recommendations for future research in areas such as sampling, fishery monitoring, and stock assessment. Include specific guidance on sampling intensity (number of samples including age and length structures) and appropriate strata and coverage.
6. Develop a spreadsheet of assessment model input data that reflects the decisions and recommendations of the Data Workshop. Review and approve the contents of the input spreadsheet by June 1.
7. Prepare the Data Workshop report providing complete documentation of workshop actions and decisions (Section II. of the SEDAR assessment report). Develop a list of tasks to be completed following the workshop.

2. Assessment Process

1. Review any changes in data following the data workshop and any analyses suggested by the data workshop. Summarize data as used in each assessment model. Provide justification for any deviations from Data Workshop recommendations.
2. Develop population assessment models that are compatible with available data and recommend which model and configuration is deemed most reliable or useful for providing advice. Document all input data, assumptions, and equations.
3. Provide estimates of stock population parameters (fishing mortality, abundance, biomass, selectivity, stock-recruitment relationship, etc); include appropriate and representative measures of precision for parameter estimates.
4. Characterize uncertainty in the assessment and estimated values, considering components such as input data, modeling approach, and model configuration. Provide appropriate measures of model performance, reliability, and 'goodness of fit'.
5. Provide yield-per-recruit, spawner-per-recruit, and stock-recruitment evaluations, including figures and tables of complete parameters.
6. Provide estimates for SFA criteria consistent with applicable FMPs, proposed FMPs and Amendments, other ongoing or proposed management programs, and National Standards. This may include: evaluating existing SFA benchmarks, estimating alternative SFA benchmarks; and recommending proxy values.
7. Provide declarations of stock status relative to SFA benchmarks.
8. Perform a probabilistic analysis of proposed reference points and provide the probability of overfishing at various harvest or exploitation levels.
9. Project future stock conditions (biomass, abundance, and exploitation) and develop rebuilding schedules if warranted; include estimated generation time. Stock projections shall be developed in accordance with the following:
    A) If stock is overfished:
        F=0, F=current, F=Fmsy, Ftarget (OY),
        F=Frebuild (max that rebuild in allowed time)
    B) If stock is overfishing
        F=Fcurrent, F=Fmsy, F= Ftarget (OY)
    C) If stock is neither overfished nor overfishing
        F=Fcurrent, F=Fmsy, F=Ftarget (OY)
10. Provide recommendations for future research and data collection (field and assessment); be as specific as practicable in describing sampling design and sampling intensity and emphasize items which will improve future assessment capabilities and reliability.
11. Prepare an accessible, documented, labeled, and formatted spreadsheet containing all model parameter estimates and all relevant population information resulting from model estimates and any projection and simulation exercises. Include all data included in assessment report tables and all data that support assessment workshop figures.
12. Complete the Assessment Process Report (Section III of the SEDAR Stock Assessment Report), prepare a first draft of the Summary Report, and develop a list of tasks to be completed following the workshop.

3. Review Workshop

1. Evaluate the adequacy, appropriateness, and application of data used in the assessment.
2. Evaluate the adequacy, appropriateness, and application of methods used to assess the stock.
3. Recommend appropriate estimates of stock abundance, biomass, and exploitation.
4. Evaluate the methods used to estimate population benchmarks and management parameters (*e.g., MSY, Fmsy, Bmsy, MSST, MFMT, or their proxies*); recommend appropriate management benchmarks and provide estimated values for management benchmarks, and declarations of stock status.
5. Evaluate the adequacy, appropriateness, and application of the methods used to project future population status; recommend appropriate estimates of future stock condition (e.g., exploitation, abundance, biomass).
6. Evaluate the adequacy, appropriateness, and application of methods used to characterize uncertainty in estimated parameters. Provide measures of uncertainty for estimated parameters. Ensure that the implications of uncertainty in technical conclusions are clearly stated.
7. Ensure that stock assessment results are clearly and accurately presented in the Stock Assessment Report and that reported results are consistent with Review Panel recommendations.
8. Evaluate the SEDAR Process as applied to the reviewed assessments and identify any Terms of Reference which were inadequately addressed by the Data or Assessment Workshops.
9. Consider the research recommendations provided by the Data and Assessment workshops and make any additional recommendations or prioritizations warranted. Clearly denote research and monitoring needs that could improve the reliability of future assessments. Recommend an appropriate interval for the next assessment, and whether a benchmark or update assessment is warranted.
10. Prepare a Peer Review Summary summarizing the Panel's evaluation of the stock assessment and addressing each Term of Reference. Develop a list of tasks to be completed following the workshop. Complete and submit the Summary Report within 3 weeks of workshop conclusion.

The review panel may request additional sensitivity analyses, evaluation of alternative assumptions, and correction of errors identified in the assessments provided by the assessment workshop panel; the review panel may not request a new assessment. Additional details regarding the latitude given the review panel to deviate from assessments provided by the assessment workshop panel are provided in the *SEDAR Guidelines* and the *SEDAR Review Panel Overview and Instructions*.

** The panel shall ensure that corrected estimates are provided by addenda to the assessment report in the event corrections are made in the assessment, alternative model configurations are recommended, or additional analyses are prepared as a result of review panel findings regarding the TORs above.**

SEDAR 24 – South Atlantic Red Snapper Stock Assessment
Project Schedule (Brief)

ACTIVITY	2010
Workshop Appointments, Schedule, and ToRs approved by Council	March 1-5, 2010
Pre-DW data scoping conference call (DW Panel)	NLT April 1
Data Evaluation Workshop (Charleston, SC)	**May 24-28**
Francis Marion Hotel, 387 King Street, Charleston, SC 29403	
Data Workshop Report complete and provided to Assess Panel	June 18
Assessment Process Stage I (assessment development-3 webinars)	June21-August 25
Assess Webinar 1. Model approaches, data	June 18
Assess Webinar 2. Initial runs, preferred approach	July 14
Assess Webinar 3. Finalize runs and sensitivities	August 13
Assess Webinar 4. Results and reporting	August 24
Assessment Stage I report distributed to AP, RP, and public	August 26
Public Comment Period	August 26-September 6
Tabulated Public Comments to Assessment Panel	September 7
Assessment Process Stage II (public comment consideration-2 webinars)	Sept. 7-Sept. 29
Assess Webinar 1. Discuss public comment, draft responses	September 9
Assess Webinar 2. Finalize public comment responses	September 21
Assessment Report released to Review Panel	September 29
Review Workshop (Savannah, GA)	**October 12-14**
Hilton DeSoto, 15 East Liberty Street, Savannah GA	
SEDAR releases final Stock Assessment Report to SSC	October 29
CIE Review Workshop report released to SSC	November 1
Review Panel SSC members present Stock Assessment Report to SSC	November 8-10
SSC reports Stock Assessment Report to SAFMC	December 6-10

SEDAR

SouthEast Data, Assessment, and Review

South Atlantic Fishery Management Council
Gulf of Mexico Fishery Management Council
Caribbean Fishery Management Council
NOAA Fisheries
Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission

4055 Faber Place Drive, Suite 201
North Charleston, SC 29405
Phone (843) 571-4366
Fax (843) 769-4520

SEDAR 24. South Atlantic Red Snapper
FINAL Terms of Reference

March 5, 2010

Data Workshop Terms of Reference

1. Review stock structure and unit stock definitions and consider whether changes are required.
2. Review, discuss, and tabulate available life history information (e.g., age, growth, natural mortality, reproductive characteristics); provide appropriate models to describe growth, maturation, and fecundity by age, sex, or length as applicable. Evaluate the adequacy of available life-history information for conducting stock assessments and recommend life history information for use in population modeling. Provide a written description of the biological sampling programs.
3. Compare and contrast life history parameter recommendations between the Gulf and South Atlantic populations of red snapper, and consider whether greater consistency between assessments of Gulf and South Atlantic stocks is appropriate.
4. Evaluate expanded otolith sampling efforts conducted during 2009 and consider which samples are appropriate as indicators of fishery and population age structure. Consider whether revisions of growth models are justified based on these additional samples.
5. Review available research and published literature on discard mortality rates, considering efforts for red snapper and similar species from the Atlantic as well as other areas such as the Gulf of Mexico, and considering recommendations on discard mortality provided through SEDAR 7 (Gulf of Mexico Red Snapper). Provide estimates of discard mortality rates by fishery, gear type, depth, and other feasible strata. Include thorough rationale for recommended discard mortality rates. Provided justification for any recommendations that deviate from the range of discard mortality provided in available research and published literature.
6. Provide measures of population abundance that are appropriate for stock assessment. Consider and discuss all available and relevant fishery dependent and independent data sources. Document all programs evaluated, addressing program objectives, methods, coverage, sampling intensity, and other relevant characteristics. Provide maps of survey coverage. Develop CPUE and index values by appropriate strata (e.g., age, size, area, and fishery); provide measures of precision and accuracy. Evaluate the degree to which available indices adequately represent fishery and population conditions. Recommend which data sources are considered adequate and reliable for use in assessment modeling.
7. Review the application of pre-MRFSS recreational catch records in the SEDAR 15 benchmark assessment and recommend appropriate use of pre-MRFSS data for assessment of red snapper.
8. Characterize commercial and recreational catch, including both landings and discards in both pounds and number. Evaluate and discuss the adequacy of available data for accurately characterizing harvest and discard by species and fishery sector. Provide observed length and age

distributions if feasible. Provide maps of fishery effort and harvest. Provide a written description of the discard sampling programs.

9. Review SEDAR 15 and SEDAR 7 approaches to selectivity of red snapper, post-SEDAR 15 evaluations of fishery selectivity patterns for Atlantic red snapper, and available length and age composition information to develop recommendations for addressing fishery selectivity in the assessment model. Specifically address the degree to which domed shape selectivity should be applied to hook and line fisheries.
10. Provide recommendations for future research in areas such as sampling, fishery monitoring, and stock assessment. Include specific guidance on sampling intensity (number of samples including age and length structures) and appropriate strata and coverage.
11. Develop a spreadsheet of assessment model input data that reflects the decisions and recommendations of the Data Workshop. Review and approve the contents of the input spreadsheet by June 4.
12. No later than June 18, 2010, prepare the Data Workshop report providing complete documentation of workshop actions and decisions (Section II. of the SEDAR assessment report). Develop a list of tasks to be completed following the workshop

Assessment Workshop Terms of Reference

Assessment Process I

1. Review any changes in data following the data workshop and any analyses suggested by the data workshop. Summarize data as used in each assessment model. Provide justification for any deviations from Data Workshop recommendations.
2. Develop population assessment models that are compatible with available data and recommend which model and configuration is deemed most reliable or useful for providing advice. Document all input data, assumptions, and equations. Include a model configuration consistent with the SEDAR 15 base run and additional recent data observations.
3. Provide estimates of stock population parameters (fishing mortality, abundance, biomass, selectivity, stock-recruitment relationship, etc); include appropriate and representative measures of precision for parameter estimates.
4. Characterize uncertainty in the assessment and estimated values, considering components such as input data, modeling approach, and model configuration. Provide appropriate measures of model performance, reliability, and 'goodness of fit'.
5. Provide yield-per-recruit, spawner-per-recruit, and stock-recruitment evaluations including figures and tables of complete parameters.
6. Provide estimates for SFA criteria consistent with applicable FMPs, proposed FMPs and Amendments, other ongoing or proposed management programs, and National Standards. This may include evaluating existing SFA benchmarks, estimating alternative SFA benchmarks, and recommending proxy values; specific criteria for evaluation will be specified in the management summary.
7. Provide declarations of stock status relative to SFA benchmarks, considering both existing and proposed management parameters.
8. Perform a probabilistic analysis of proposed reference points and provide the probability of overfishing at various harvest or exploitation levels and, if the stock is determined to be overfished, the probability of rebuilding within mandated time periods as described in the management summary.
9. Project future stock conditions (biomass, abundance, and exploitation) and develop rebuilding schedules if warranted; include estimated generation time. Stock projections shall be developed in accordance with the following:

   A) If stock is overfished:
   F=0, F=current, F=Fmsy, Ftarget (OY),
   F=Frebuild (max that rebuild in allowed time)

   B) If stock is overfishing
   F=Fcurrent, F=Fmsy, F= Ftarget (OY)

   C) If stock is neither overfished nor overfishing
   F=Fcurrent, F=Fmsy, F=Ftarget (OY)
10. Provide recommendations for future research and data collection (field and assessment); be as specific as practicable in describing sampling design and sampling intensity and emphasize items which will improve future assessment capabilities and reliability.
11. Prepare an accessible, documented, labeled, and formatted spreadsheet containing all model parameter estimates and all relevant population information resulting from model estimates and any projection and simulation exercises. Include all data included in assessment report tables and all data that support assessment workshop figures.

12. No later than August 27, 2010, complete the Draft Assessment Workshop Report for Review (Section III of the SEDAR Stock Assessment Report).

Assessment Process II

1. Review comments submitted during the open pre-review period and review prior recommendations and assessment results in light of submitted comments.
2. Consider whether corrections, revisions, or additional analyses are justified.
3. Address submitted comments as appropriate and document results through working papers, addenda to the draft assessment report, or corrections to the draft assessment report.
4. No later than September 27, 2010, complete the Assessment Workshop Report (Section III of the SEDAR Stock Assessment Report).

Review Workshop Terms of Reference

1. Evaluate the adequacy, appropriateness, and application of data used in the assessment.
2. Evaluate the adequacy, appropriateness, and application of methods used to assess the stock.
3. Recommend appropriate estimates of stock abundance, biomass, and exploitation.
4. Evaluate the methods used to estimate population benchmarks and management parameters (*e.g., MSY, Fmsy, Bmsy, MSST, MFMT, or their proxies*); recommend appropriate management benchmarks, provide estimated values for management benchmarks, and provide declarations of stock status.
5. Evaluate the adequacy, appropriateness, and application of the methods used to project future population status; recommend appropriate estimates of future stock condition (e.g., exploitation, abundance, biomass).
6. Evaluate the adequacy, appropriateness, and application of methods used to characterize uncertainty in estimated parameters. Provide measures of uncertainty for estimated parameters. Comment on the degree to which methods used to evaluate uncertainty reflect and capture the significant sources of uncertainty. Ensure that the implications of uncertainty in technical conclusions are clearly stated.
7. Ensure that stock assessment results are clearly and accurately presented in the Stock Assessment Report and that reported results are consistent with Review Panel recommendations.*
8. Evaluate the SEDAR Process as applied to the reviewed assessment and identify any Terms of Reference which were inadequately addressed by the Data or Assessment Workshops.
9. Consider the research recommendations provided by the Data and Assessment workshops and make any additional recommendations or prioritizations warranted. Clearly denote research and monitoring needs that could improve the reliability of future assessments. Recommend an appropriate interval for the next assessment, and whether a benchmark or update assessment is warranted.
10. Prepare a Peer Review Summary summarizing the Panel's evaluation of the stock assessment and addressing each Term of Reference. Develop a list of tasks to be completed following the workshop. Complete and submit the Peer Review Summary Report no later than November 1, 2010.

* The panel shall ensure that corrected estimates are provided by addenda to the assessment report in the event corrections are made in the assessment, alternative model configurations are recommended, or additional analyses are prepared as a result of review panel findings regarding the TORs above.

SEDAR 24

South Atlantic Red Snapper
Assessment Process Participants
June 18 – September 29, 2010

Kari Fenske, SEDAR 24 Assessment Process Coordinator

Appointee	Function	Affiliation
ASSESSMENT PANEL		
Steve Amick	Charter/Headboat, GA	SAFMC SG AP
Luiz Barbieri	SSC Member	SAFMC
Zack Bowen	Charter/Headboat, GA	SAFMC SG AP
Ken Brennan	Recreational Data Leader	SEFSC
Bobby Cardin	Commercial, FL	
Rob Cheshire	Data Compiler	SEFSC
Chip Collier	SSC Member	SAFMC
Andrew Cooper	SSC Member	SAFMC
Kenny Fex	Commercial, FL	SAFMC SG AP
Frank Hester	Consultant	Southeast Fishery Assoc.
Jim Ianelli	Analyst	Alaska FSC
Paul Spencer	Analyst	Alaska FSC
Robert Johnson	Charter/Headboat, N FL	SAFMC SG AP
Brian Linton	Gulf RS Update Consultant	SEFSC
Mike Murphy or Behzad Mahmoudi	Analyst	FL FWCC
Jennifer Potts	Life History Data Leader	SEFSC
Amy Schueller	Indices Data Leader	SEFSC
Kyle Shertzer	Lead Analyst	NMFS SEFSC Beaufort
Rodney Smith	Recreational, FL	Coastal Angler Magazine
Doug Vaughan	Commercial Data Leader	SEFSC
Erik Williams	Analyst	NMFS SEFSC Beaufort
John Quinlan	Analyst	NMFS SEFSC Miami
COUNCIL REPRESENTATIVES		
George Geiger	Council Member	SAFMC
Charles Phillips	Council Member	SAFMC
COUNCIL AND AGENCY STAFF		
John Carmichael	Fishery Scientist	SAFMC
Rick DeVictor	Lead Fishery Scientist	SAFMC
Rachael Lindsay	Administrative Assistant	SEDAR
Jack McGovern	Fishery Scientist	SERO
Julie Neer	Coordinator	SEDAR
Andy Strelcheck	Fishery Scientist	SERO

(6-3-10)

Gregg Waugh	Fishery Scientist	SAFMC

South Atlantic Update Stock Assessments*
Workshop Participants
Acronyms

AFSC.....Alaska Fisheries Science Center
AP .....Advisory Panel
FL FWCC..... Florida Fish and Wildlife Conservation Commission
NMFS.....National Marine Fisheries Service
SAFMC.....South Atlantic Fishery Management Council
SEDAR .....Southeast Data, Assessment, and Review
SEFSC.....Southeast Fisheries Science Center, NMFS
SERO ..... Southeast Regional Office, NMFS
SG .....Snapper / Grouper
SSC ..... Science and Statistics Committee
TBN.....To be named

(6-3-10)

SEDAR 24

South Atlantic Red Snapper

Review Workshop Participants

October 12-14, 2010

Kari Fenske, SEDAR 24 Coordinator

Appointee	Function	Affiliation
REVIEW PANEL		
John Boreman	SSC Rep	SSC - SAFMC
TBD	SSC Rep	SSC - SAFMC
TBD	Review Panel Chair	SSC - SAFMC
TBD	CIE Reviewer	CIE
TBD	CIE Reviewer	CIE
TBD	CIE Reviewer	CIE
APPOINTED AP AND CONSTITUENT REPRESENTATIVES		
Steve Amick	Charter/Headboat, GA	SAFMC SG AP
Zack Bowen	Charter/Headboat, GA	SAFMC SG AP
Bobby Cardin	Commercial, FL	SAFMC SG AP
Kenny Fex	Commercial, NC	SAFMC SG AP
Rodney Smith	Recreational, FL	SAFMC SG AP
ASSESSMENT WORKSHOP REPRESENTATIVES		
Ken Brennan	Recreational Data Leader	SEFSC Beaufort
Rob Cheshire	Data Compiler	SEFSC Beaufort
Brian Linton	Gulf RS Update Consultant	SEFSC Miami
Jennifer Potts	Life History Data Leader	SEFSC Beaufort
Amy Schueller	Indices Data Leader	SEFSC Beaufort
Kyle Shertzer	Lead Analyst	SEFSC Beaufort
Doug Vaughan	Commercial Data Leader	SEFSC Beaufort
Erik Williams	Analyst	SEFSC Beaufort
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Rick DeVictor	Lead Fishery Scientist	SAFMC Staff
Rachael Lindsay	Administrative Assistant	SEDAR
Jack McGovern	Fishery Scientist	SERO

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Julie Neer	Coordinator	SEDAR
Andy Strelcheck	Fishery Scientist	SERO
Gregg Waugh	Fishery Scientist	SAFMC Staff

(6-29-10)

South Atlantic Update Stock Assessments*

Workshop Participants

Acronyms

AP .....Advisory Panel
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SERO ..... Southeast Regional Office, NMFS
SG .....Snapper / Grouper
SSC ..... Science and Statistics Committee
TBD..... To be determined

(6-29-10)