SEDAR Description and Background

SouthEast Data, Assessment, and Review

Cooperative Stock Assessment Development Program of:

NOAA Fisheries Southeast Fisheries Science Center

NOAA Fisheries Southeast Regional Office

South Atlantic Fishery Management Council

Gulf of Mexico Fishery Management Council

Caribbean Fishery Management Council

Atlantic States Marine Fisheries Commission

Gulf States Marine Fisheries Commission

NOAA Fisheries Highly Migratory Species Division

SEDAR

4055 Faber Place #201
North Charleston, SC 29405

May 2012

In May 2011, the SEDAR Steering Committee approved a new, more streamlined set of guidelines which better reflected the current operations of the SEDAR program and goals. For current SEDAR guidelines please see the *SEDAR Policies and Procedures* document.

This document is being provided in order to maintain a record of the development and history of the SEDAR Program.

SEDAR Guidelines

SouthEast Data, Assessment, and Review

Cooperative Stock Assessment Development Program of:

NOAA Fisheries Southeast Fisheries Science Center
NOAA Fisheries Southeast Regional Office
South Atlantic Fishery Management Council
Gulf of Mexico Fishery Management Council
Caribbean Fishery Management Council
Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission

Prepared by John Carmichael, SEDAR Program Manager

SEDAR
4055 Faber Place #201
North Charleston, SC 29405

Version 17
October 2007

Table of Contents

1. Introduction 4
2. Oversight and Administration 5
2.1 Oversight 5
2.2 Administration 5
2.3 Council and Agency Obligations 6
2.4 Scheduling 6
2.5 Workload 7
3. SEDAR Workshops 7
3.1 Workshop Overview 7
3.2 Data Workshop 8
3.3 Assessment Workshop 10
3.4 Review Workshop 12
3.5 Summarized SEDAR Workshop Responsibilities 16
4. General Policies 17
4.1 Management Advice 17
4.2 SEDAR Documents 17
4.3 Treatment of Confidential Data 18
4.4 Dissemination of SEDAR reports 18
4.5 Model Acceptance Criteria 19
4.6 Continuity Models 19
4.7 SEDAR Administrative Record 20
4.8 Paperless Policy 20
4.9 SEDAR Website 20
5. SEDAR Assessment Classifications 21
5.1 Benchmark Assessments 21
5.2 Assessment Updates 21
6. Relationship of SEDAR to the Councils and Council Committees. 22
6.1 Council & Committees 22
6.2 Interstate Commissions 24
7. Public Participation 24
8. Appendices 25
8.1 General Terms of Reference 25

8.2 SEDAR Assessment Report Outline 28
8.3 Recommended Tables and Figures 33
8.4 SEDAR Document Series 35
8.4.1 Document Types 35
8.4.2 Working Paper Submission Guidelines 36
8.4.3 Document Distribution 37
8.5 SEDAR Workshop Participation Guidelines 38
8.6 Review of SEDAR Workload and Scheduling 41
8.7 SEDAR Assessment Projects 42
8.7.1 SEDAR Benchmark Assessment List 42
8.7.2 SEDAR Assessment Update Schedule 43
8.8 Overview of the Center for Independent Experts 44
8.9 Workshop Panel and Participant Instructions 46
8.9.1 Data Workshop 46
8.9.2 Assessment Workshop 51
8.9.3 Review Workshop 55

1. Introduction

SouthEast Data, Assessment, and Review (SEDAR**)** is a cooperative Fishery Management Council process initiated to improve the quality and reliability of assessments of fishery resources in the southeastern United States, including the South Atlantic, Gulf of Mexico, and US Caribbean. SEDAR is managed by the three Regional Fishery Management Councils in the Southeast in coordination with NOAA Fisheries and the Interstate Fishery Commissions (ASMFC and GSMFC). SEDAR seeks to improve the quality and reliability of stock assessments, improve the quantitative basis of fishery management actions, and increase the relevance of research and monitoring programs in the Southeast Region. SEDAR strives to provide the best available science for use by the regional Councils in developing management actions. SEDAR incorporates a multi-year planning cycle to facilitate timely data collection and sample preparation, population dynamics model development, and stock evaluation exercises. This document describes SEDAR, specifies how the SEDAR process relates to existing Council and Commission Committees, and provides operational guidelines.

SEDAR places special emphasis on increasing constituent and stakeholder participation in assessment development and ensuring a rigorous and independent scientific review of completed stock assessments. SEDAR goals are to improve the quality of stock assessment products for the Southeast Region, increase and broaden participation in generating stock assessments, provide best available science for development of management actions, and provide managers and constituents greater understanding of, and confidence in, assessment results. Primary changes from the past assessment development process include the addition of a Data Workshop which involves many participants representing various disciplines and interests and a Review Workshop which provides an independent peer review. These additional workshops and broader participation increase time demands on federal and state agencies as well as constituent representatives. Although SEDAR places less burden on specific individuals to developing complete stock assessments by themselves, it increases the burden and responsibility on the collective assessment and technical expertise of the region to generate, verify, and review the many pieces that contribute to an assessment. To this end, those appointed to SEDAR panels are expected to be true participants and contribute analyses and report text in addition to comment and critique.

SEDAR stock assessments are prepared through SEDAR projects consisting of three separate and sequential workshops:

1) The Data Workshop -- involves the assembly and review of all available fishery data and life history information, resulting in consensus databases to be used in stock assessments. Analytical techniques and models appropriate for the available data are also suggested.

2) The Assessment Workshop -- data sets from the Data Workshop are used with population dynamics modeling techniques to determine the status of stocks; and

3) Review Workshop – a rigorous review of the stock assessment by independent peers.

The product of SEDAR projects is a stock assessment report to a Council or Commission. SEDAR assessment reports are analogous to the assessment reports previously prepared by Council Assessment Panels and NOAA Fisheries as outlined under some framework procedures. The final assessment report must specify management parameters required under the Magnuson-Stevens Act, Council FMP's, or framework procedures; document the activities and opinions of all SEDAR workshops; and provide values of population parameters and management benchmarks required to evaluate stock status. Specific parameters to be provided by an assessment are listed in the Terms of Reference developed for each SEDAR Workshop. Each Council modified their framework procedures to reflect the activities of SEDAR.

2. Oversight and Administration

2.1 Oversight

Oversight of the SEDAR process and operations schedule is provided by the SEDAR Steering Committee. The Steering Committee is composed of the NOAA Fisheries Southeast Science Center Director; NOAA Fisheries Southeast Regional Administrator; Executive Directors of the South Atlantic, Gulf of Mexico and Caribbean Fishery Management Councils; Chairs of the South Atlantic, Gulf of Mexico and Caribbean Fishery Management Councils; and the Executive Directors of the Atlantic and Gulf States Marine Fisheries Commissions. Designees may attend Steering Committee meetings in place of these individuals. The Steering Committee shall elect a Chair and vice-Chair from its membership. Steering Committee officers shall serve 2 year terms. Officers may serve successive terms without limit.

Policy decisions, approval of SEDAR guidelines, determination of species to be assessed, and assessment project timing are established by the SEDAR Steering Committee. The SEDAR Steering Committee will meet at least twice annually to schedule specific species that will be assessed through the SEDAR process and consider any other issues associated with the SEDAR process. Assessments are scheduled a minimum of three years in advance and potential species are identified out several additional years. Such long-term advanced planning is intended to allow researchers to develop updated inputs and assess appropriate techniques and models for use in assessments. The committee also reviews progress on SEDAR assessments and recommends modifications of the SEDAR Process. SEDAR staff support steering committee activities.

2.2 Administration

The South Atlantic and Gulf of Mexico Fishery Management Councils are funded by the SEFSC to administer the SEDAR process for the southeast region. The South Atlantic Council provides the SEDAR Program Manager, SEDAR Coordinators, and SEDAR administrative support. The Gulf Council provides administrative support for SEDAR workshop involving Gulf Council managed species. The South Atlantic Council handles participant travel reimbursement and workshop facility arrangements. SEDAR staff is responsible for the administrative duties of SEDAR, with administrative assistance provided by the Gulf and South Atlantic Council's administrative staff as necessary for duties such as lodging and meeting contracts, travel reimbursements under the SEDAR grant, meeting support, and meeting materials distribution. The SEDAR

Coordinator chairs the data and assessment workshops and supports the review workshops. Scheduling of SEDAR workshops, developing attendee lists, and making arrangements for workshops is done collaboratively by SEDAR staff, the associated council for the given SEDAR project, and the SEDAR Steering Committee.

2.3 Council and Agency Obligations

Each Council and Agency affiliated with SEDAR and engaged in a SEDAR assessment project is expected to meet certain obligations and fill certain roles that are designated by the Steering Committee and described throughout this document. In general, each partner is responsible for approving workshop scheduling and terms of reference, and appointing workshop participants. Partners are also responsible for providing notices of workshops and SEDAR activities, such as through press releases, mailing lists, or newsletter notices, as they deem appropriate.

Each Steering Committee member shall designate a staff person who shall serve as a lead contact and liaison between their agency and SEDAR Staff for each SEDAR project involving their agency. This designee is responsible for ensuring appointments to SEDAR panels are made promptly and that their agencies participants meet deadlines for data and document submissions. This designee is responsible for assisting SEDAR staff in preparing for SEDAR workshops and ensuring designated workshop roles are filled.

Each Council establishes guidelines and procedures for appointing individuals from its SEDAR Advisory Panel to participate in SEDAR workshop panels; these procedures need not be identical for each Council. The SEDAR program provides travel expenses for workshop panelists appointed by the Councils, Council members appointed to observe the workshops, and support staff. Invitations to Council appointed participants in SEDAR workshops are issued by the Council making the appointment.

2.4 Scheduling

SEDAR projects require a minimum of nine months, not counting the time that may be necessary for tasks such as research projects, data collection and entry, or age structure interpretation. Spreading the workshops over time allows participants to complete SEDAR tasks without excessive detriment to other responsibilities. An extended period also eases scheduling burdens and promotes separation of SEDAR workshops and meetings of the Councils and Commissions in the Region that are also competing for the time of agency technical staff and constituent representatives. Experience proves that SEDAR projects should not overlap – one should be completed before another begins. This ensures that preparations for one project do not interfere with another project.

A general schedule can be developed based on the preparation time needed before and after each workshop. Dates for all three workshops should be approved, a preliminary count of expected participants should be provided to the SEDAR Coordinator, and key participants (Council Staff, Lead Analysts, Data Workgroup leaders) should be identified approximately 9 months prior to the Data Workshop Analysts and data collectors should begin drafting issue papers and preparing data for submission approximately 6 months weeks prior to the data workshop. Data workshops require a weeklong meeting, and additional time over the following weeks to finalize the report. The Data workshop report should complete and the datasets are finalized within 2

months of the assessment workshop so that assessment analysts can begin preliminary model development and draft issue papers describing model options. Approximately three months are needed between the data and assessment workshops to complete these tasks. The assessment workshop requires another weeklong meeting, followed by approximately 4 weeks to finalize the report, complete any subsequent analyses, and produce the necessary figures and tables. The Assessment Report should be finalized for distribution to the review panelists at least 2 weeks before the review workshop. The review workshop requires a weeklong meeting, followed by 2-3 weeks to finalize the report.

SEDAR scheduling is based on 2 annual projects spread over a calendar year, with a Spring project running generally from January – August and a Fall project running generally between June and March. Approximately 9 months are allotted to each SEDAR project, with overlap of projects allowed to maintain completion of 2 projects per year. Data workshops of one project will be scheduled approximately midway between the assessment and review workshops of the prior project. Actual dates will be determined by the SEDAR coordinator with advice from the Steering Committee and with regard to Council meeting schedules and other critical SEFSC obligations.

2.5 Workload

Individual SEDAR projects will be limited to no more than 3 complete benchmark assessments. These may include a single species having multiple management units or stocks, as in the case of king or Spanish mackerel, or may include multiple separate species that are closely related based on life history or fisheries. SEDAR projects will typically be devoted to species within a single Council's jurisdiction. Exceptions may occur with those stocks or stock units managed by more than one Council, such as king and Spanish Mackerel where there is a joint Gulf-South Atlantic FMP and each Council has jurisdiction over a particular migratory unit, or in the event the Steering Committee believes efficiency will be gained by crossing jurisdictions. Additional related species may occasionally be added to data workshops for data quality or availability documentation or to identify research and monitoring needs. Additional assessments completed by State agencies or the Interstate Commissions may be added to review workshops. A SEDAR project may be devoted to a single assessment if the assessment is expected to be particularly complex.

3. SEDAR Workshops

3.1 Workshop Overview

SEDAR is structured around three separate workshops. At the Data workshop participants will review and compile data necessary for stock assessment. At the Assessment workshop participants will review and refine assessment models, select base and sensitivity configurations, recommend a preferred model for providing assessment advice, and provide estimates of stock status and management parameters. At the review workshop the entire process is reviewed by an independent panel of experts charged with ensuring that final assessment products are complete, accurately presented, and reliable.

The charge to each workshop is specified in terms of reference. General terms of reference are included for each workshop in the following section. Each Council shall approve final terms of reference for assessments of those stocks under its jurisdiction.

The success of SEDAR depends on the willingness of appointed workshop panelists from all partners to contribute to the required tasks. All members of the panel at each workshop are expected to actively contribute to the workshop process, not just through participation in group discussions, but also by preparing supporting analyses, contributing documents and datasets, and producing workshop report text. Panelists are expected to provide alternative solutions along with any criticisms and work toward consensus while conducting themselves with respectful and professional behavior. No personal attacks or aggressive behavior will be tolerated from any participants, and those who persist in such actions will be asked to leave.

SEDAR is a public process. SEDAR workshops are open public meetings, SEDAR documents are distributed to the public upon request, and SEDAR proceedings are part of the official administrative record of the Southeast regional Councils. Appointed panelists should expect that members of the public will attend and observer SEDAR workshops. In fact, the associated Councils, Commissions, and NOAA Fisheries Agencies may appoint official observers, such as council members or senior agency representatives, to participate in the workshop process. Public comment may also be taken during workshop deliberations. Comments and questions from the observers in attendance will be accepted by the workshop chair as appropriate. In general, the degree of formality in accepting observer comment and questions will increase from the data workshop to the review workshop. Written comment will also be accepted by the associated Councils and agencies in accordance with Council or agency guidelines. Officially appointed observers may also submit written comment that will be included in the report for each workshop. All documents, including workshop reports and submitted and numbered working documents, are made available to the public and posted on the internet.

The basic workshop nature of the SEDAR process generally prevents development of and adherence to structured and timed workshop agendas. Although starting and ending times of workshops are strictly followed due to the demands of planning travel, activities during workshops will be scheduled according to progress and workload. Participants should be prepared for possible workshop sessions outside the normal ‘9 to 5’ hours of typical meetings.

3.2 Data Workshop

Data workshop participants assemble and critique all available fishery data, monitoring programs, and life history information. Data workshop participants provide the consensus databases used to conduct stock assessments. Analytical techniques appropriate for the available datasets are recommended for the Assessment Workshop. Data workshop decisions and recommendations are documented in the SEDAR Assessment Report. Data formats and documentation guidelines are distributed in advance, and some preliminary analyses of the data are conducted prior to the workshop.

Data workshop participants include database managers; data specialists; data collectors; life history researchers; stock assessment scientists from States, NOAA Fisheries, Commission, universities, independent laboratories and institutions; and Council representatives (advisory panel leaders or chairs: commercial, recreational, NGO, staff and Council members). The data workshop panel is composed of those scientists, data managers, and advisors appointed in accordance with SEDAR guidelines by the Councils, Commissions, and NOAA Fisheries for their knowledge of the fisheries and stocks to be assessed. Council or senior agency representatives participate as official observers but not as panel members. Members of the public who attend are noted as observers. The SEDAR coordinator will typically serve as the data workshop Chair.

Data workshops are structured around working groups dedicated to particular data issues, such as commercial statistics, recreational statistics, life history, and abundance indices. Specific groups are determined based on the needs of the candidate species. Participants are assigned to workgroups in advance, based on their particular skills, experience, and expertise. Each group ideally includes someone experienced in assessment modeling. A leader appointed for each workgroup is responsible for recording panel discussions and decisions on their workgroups data charge and ensuring that relevant report sections are drafted.

Data workshop working groups review submitted data and working papers within their area of responsibility and develop initial recommendations and alternatives for consideration by the entire panel. Most of the data workshop meeting time is devoted to break-out sessions where the workgroups deliberate. Plenary sessions of the entire data workshop panel are convened as needed to review workgroup recommendations and develop consensus opinions on all issues. All decisions of the data workshop are made during the plenary sessions by consensus of the entire membership.

Workgroup products include the complete time-series of data necessary to run stock assessment models (see the SEDAR outline for complete details), clearly stated recommendations indicating which available data sources are appropriate for use in assessment modeling, and complete documentation of datasets and workshop activities. Final datasets accepted by the group will be documented in the workshop report and available in electronic format at the conclusion of the workshop. Supporting documentation and preliminary or exploratory analyses are typically documented in the working papers. Results of the workshop are documented in the data workshop report, which is section II of the SEDAR Stock Assessment Report.

Terms of Reference

The charge to the data workshop is specified in Terms of Reference (Appendix 1). Terms of Reference for each data workshop shall be approved by the Council or Commission requesting the assessment within 2 months of the start of the workshop. The general terms of reference may also be modified by the Councils during SEDAR project planning.

Data Workshop Responsibilities:

A number of specific jobs are required for to complete the terms of reference for data workshops. Each partner in the process is expected to appoint participants with the intent of ensuring each job is filled. The Steering Committee approved the following jobs and identified the SEDAR partner (noted in parentheses) that will typically provide the personnel to fill the job:

Chair: (SEDAR Coordinator) Runs the workshop, schedules work and plenary sessions, ensures Terms of Reference are addressed.

Workgroup Leaders: (SEFSC and Council appointees) Lead individual workgroups, coordinate initial data analyses and working papers prior to the workshop, present group recommendations during plenary sessions, serve as lead author for group's data report section.

Workgroup Rapporteur: (SEFSC and Council appointees) Take notes during group work sessions and plenary, help group leader draft report text and plenary reports.

Workshop Data Manager: (Lead assessment agency) Manage submitted data and ensure all data products are tabulated in the SEDAR input worksheet. Oversee data review and finalization following the workshop. May be expected to contribute data presentations at the Assessment and Review Workshops.

Chief Editor: (SEDAR Staff): Responsible for compiling group document segments into the final workshop report, distributing document to the workshop panel for review, and submitting the final workshop report to the SEDAR coordinator.

Participant Information

Serving as a data workshop panelist is a considerable commitment that will require more time than simply the week of the workshop. Panelists will need to set aside time in the weeks prior to the workshop to review documents and for some, to prepare datasets. Workgroup meetings often extend beyond the normal '9 to 5' of most meetings; evening sessions are the norm rather than the exception. Time is required following the workshop to review and finalize reports. In many instances further data analysis is required to address workshop recommendations and prepare datasets for the assessment.

Workshop participants should bring a laptop computer for data manipulation, analysis, and text drafting. Participants are encouraged to bring basic datasets and appropriate software so that additional analyses and corrections can be prepared during the workshop. Participants are encouraged to submit working papers documenting their data and analyses.

In general, the Data Workshop will occur about 12 weeks prior to the Stock Assessment Workshop to allow time for completion of the report and datasets and development of initial model runs.

3.3 Assessment Workshop

Participants at the assessment workshop conduct stock assessments, prepare stock rebuilding analyses, and estimate population benchmarks. Specific assessment methods

vary and are based on the level of available data. Provisions of the NMFS Technical Guidance Document are considered when assessing the status of data poor stocks.

Assessment workshop participants include NOAA Fisheries stock assessment scientists, Commission/State/university/independent assessment scientists , Council advisory panel (commercial, recreational, and/or NGO) representatives, Scientific & Statistical Committee members, and Council staff and members. The assessment workshop panel is composed of those scientists, data managers, and advisors appointed in accordance with SEDAR guidelines by the Councils, Commissions, and NOAA Fisheries for their knowledge of the fisheries and stocks to be assessed. Council or senior agency representatives participate as official observers, but not as panel members. Members of the public who attend are noted as observers. The SEDAR coordinator will typically serve as the workshop Chair. As with all SEDAR workshops, stock assessment workshop panelists are appointed from each Councils' SEDAR Advisory Panel.

The workshop panel performs functions outlined in various Council FMP framework procedures, including producing an assessment report, evaluating stock status, recommending allowable harvest levels (ABCs), and providing values of SFA criteria such as B_{msy}, F_{msy}, MSST, MFMT, and T_{min}. Assessment workshop products are specified in the workshop Terms of Reference guided by Council requirements, the Sustainable Fisheries Act and the National Standards.

Terms of Reference

The charge to the assessment workshop is specified in Terms of Reference. General Terms of Reference are provided in Appendix 1; however, the cooperator requesting the assessment may modify the terms of reference to suit a particular assessment need. Terms of Reference for each assessment workshop shall be approved by the Council or Commission requesting the assessment at least 2 months prior to the workshop.

Workshop Responsibilities

A number of specific jobs are required to complete the terms of reference for assessment workshops. Each partner in the process is expected to appoint participants with the intent of ensuring each job is filled. The Steering Committee approved the following jobs and identified the SEDAR partner (noted in parentheses) that will typically provide the personnel to fill the job:

Workshop Chair: (SEDAR Coordinator) Responsible for conducting the workshop, scheduling workshop sessions, and ensuring the Terms of Reference are addressed.

Stock Rapporteur: (Council Appointee, 1 per stock) Responsible for taking notes during plenary sessions to ensure that discussion items are reflected in the workshop report, assists chair in ensuring Terms of Reference and Council requirements are addressed. May be asked by appointing Council to assist in presenting workshop findings to the SSC and other Council bodies.

Stock Leader (Council Appointee, 1 per stock) Prepares and edits the proceedings section of the assessment workshop report. Responsible for compiling

segments drafted by workshop participants and completing and submitting report in accordance with project deadlines. Represents the assessment panel at the Review Workshop and subsequent Council meetings. Rapporteur and Editor roles may be filled by one individual at Council's discretion.

Lead Analyst: (SEFSC/Assessment Agency, 1 per stock) Leader of the assessment team, responsible for preparing population models and making presentations to the assessment panel. Also responsible for presenting the assessment to the Review Panel and possibly the SSC and Council.

Analytical Team: Core group of assessment analysts responsible for conducting model runs, presenting results, and conducting further analyses during the Review Workshop.

Data Presenters: Responsible for presenting overviews of data sources, including the results of any post-DW analyses and compilations. May be filled by the same individuals as other workshop roles.

A written draft report, providing an overview of the analyses, general findings, and recommendations of the workshop, shall be completed during the workshop. All workshop panelists are expected to contribute to the report effort. This report may be expanded and modified following the workshop. The assessment workshop report consists of two primary sections: 1) workshop proceedings, documenting panel discussion and recommendations, and 2) assessment methods and results, documenting the specifics of each assessment model.

Participant Information

Serving as an assessment workshop panelists is a considerable commitment requiring more time than the typical meeting. Panelists will need to set aside time in the weeks prior to the workshop to review documents and prepare analyses. Workshops often extend beyond the normal '9 to 5' of most meetings and evening working sessions are often required for conducting analyses and drafting the report. Time is needed following the workshop to review and finalize the assessment report.

If final assessment results cannot be provided during the scheduled assessment workshop, the workshop panel shall agree to a process and timeline for reviewing the final products and finalizing the workshop report. In the event issues arise that cannot be addressed during the time scheduled for the assessment workshop, the workshop panel should develop a recommended course of action for consideration by the SEDAR steering committee. Alternatives include reconvening the panel at a later date, conference calls, written reviews, or electronic 'email' discussion threads.

Participants should bring a laptop computer for word processing, data manipulation, and modeling.

3.4 Review Workshop

SEDAR Review Workshops provide independent peer review of stock assessments prepared through SEDAR data and assessment workshops. The term 'review' is applied broadly, as the goal is not a simple pass-fail evaluation of the assessment. The intent is to ensure that the assessment and results presented are scientifically sound and that decision makers are provided adequate advice. The Review

Panel may request additional analyses, corrections of existing analyses and sensitivity runs from the assessment model provided by the Assessment Workshop. An Analytical Team, composed of a subset of the Assessment Workshop panel and representing the primary analysts for each assessment, will be present at the workshop to present assessment findings, provide an overview of assessment data, provide additional results or model information, and prepare any additional analyses requested by the Review Panel. Although many individuals contribute to a SEDAR assessment, the Review Panel is ultimately responsible for ensuring that the best possible assessment is provided through the SEDAR process.

The review panel shall not provide specific management advice. Such advice will be provided by existing Council Committees, such as the Science and Statistical Committee and Advisory Panels, following completion of the assessment.

SEDAR review workshop panels are typically composed of a Chair, 3 reviewers appointed by the CIE (Center for Independent Experts), and 1 reviewer appointed by each Council having jurisdiction over the stocks under review. All reviewers must be independent, meaning that they did not have any involvement in the assessments under review and must not have any involvement in any regulatory actions that may stem from the assessment results. Each Council may appoint several official observers, typically including representative of the Council, its SSC, and appropriate Advisory Panels. In appointing observers the Councils should take care to ensure continuity with previous workshops. Official observers may also be appointed by the Interstate Commissions and NOAA Fisheries.

The review panel is supported by SEDAR staff, a technical team, one or more rapporteurs, and the Assessment Workshop representative. The technical team consists of the lead analyst and those additional scientists provided through the lead assessment agency to address panel questions and tasks.

All SEDAR workshops, including the Review Workshop, are open, transparent, public processes administered according to the rules and regulations governing Federal Fishery Management Council operations. The names and affiliations of reviewers will be disclosed in the review workshop documents. The Review Workshop Consensus Summary and Summary Reports will be publicly distributed along with the other SEDAR Workshop working papers and reports. The public will be given an opportunity to comment during the Review Workshop and may submit written comments in accordance with Council guidelines.

Review workshop panelists receive the Assessment Report including sections prepared by the data and assessment workshops, supplemental analytical materials including all working papers and reference documents from prior workshops, and consensus data sets at least two weeks prior to the review workshop.

During the review, the Review Workshop panel will prepare a Consensus Summary addressing each of the Terms of Reference. The consensus summary should represent the views of the group as a whole, and may include any dissenting views of individual panelists. The panel will also finalize a Summary Report for each assessment which summarizes the primary assessment findings. Outlines and example documents will be provided by SEDAR staff.

Terms of Reference

The charge to each SEDAR Review Workshop is specified in Terms of Reference that are approved by the Councils having jurisdiction over the stocks assessed. General Terms of Reference for the Review Workshop are provided in Appendix 1. The lead agency involved in an assessment may modify the Terms of Reference and is responsible for approving proposed Terms of Reference.

Review Workshop Panel Instructions

The Review Panel Chair is responsible for compiling and editing the Review Panel Consensus Summary and Summary Reports and submitting the reports to the SEDAR Coordinator by a deadline specified by the SEDAR Steering Committee. At the start of the workshop the Chair will assign each panelist specific duties, such as drafting specific consensus and summary report sections. The Chair will select one panelist to serve as assessment leader for each stock assessment under review. The assessment leader is responsible for preparing initial drafts of the consensus report and summary report for the assigned assessment. Such duties may be further subdivided if workshop manpower allows. The SEFSC will provide a rapporteur to take notes on the discussions so that panelists can more fully participate in discussions and assist the analytical team in documenting panel recommendations.

The Review Panel's primary responsibility is to ensure that assessment results are based on sound science, appropriate methods, and appropriate data. During the course of review, the panel is allowed limited flexibility to deviate from the assessment provided by the Assessment Workshop. This flexibility may include modifying the assessment configuration and assumptions, requesting a reasonable number of sensitivity runs, requesting additional details and results of the existing assessments, or requesting correction of any errors identified. However, the allowance for flexibility is limited, and the review panel is not authorized to conduct an alternative assessment or to request an alternative assessment from the technical staff present. The Review Panel is responsible for applying its collective judgment in determining whether proposed changes and corrections to the presented assessment are sufficient to constitute an alternative assessment. The Review Panel Chair will coordinate with the technical staff present to determine which requests can be accomplished and prioritize desired analyses.

Any changes in assessment results stemming from modifications or corrections solicited by the review panel will be documented in an addendum to the assessment report. If updated estimates are not available for review by the conclusion of the workshop, the review panel shall agree to a process for reviewing the final results. Any additional or supplemental analyses requested by the Review Panel and completed by the Analytical team shall, at the discretion of the chair and panel, be either documented through a supplemental report or included in the Review Panel Consensus Summary.

If the Review Panel finds an assessment deficient to the extent that technical staff present cannot correct the deficiencies during the course of the workshop, or the Panel deems that desired modifications would result in an alternative assessment, then the Review Panel shall provide in writing the required remedial measures suggest an appropriate approach for correcting the assessment and subsequently reviewing the corrected assessment.

SEDAR Independent Peer Review Panel Composition

Chair: Appointed by the SEFSC Director.

CIE Reviewers: 3 Independent Scientists appointed by the CIE.

Council Reviewer: 1 independent scientist appointed by each Council having jurisdiction over the species assessed.

Review Workshop Responsibilities

Chair (SEFSC appointee): Responsible for conducting workshop sessions; developing a work plan with staff and workshop appointees to address each Term of Reference and panel requests; ensuring recommendations and comments are reflected in panel reports; submitting panel documents by stated deadlines

Reviewer (CIE): Responsible for reviewing workshop documents in advance and contributing to a rigorous peer review of the presented assessment, including drafting required workshop reports, in accordance with the SEDAR Guidelines and CIE contract.

Reviewer (Council): Responsible for reviewing workshop documents in advance and contributing to a rigorous peer review of the presented assessment, including drafting required workshop reports, in accordance with the SEDAR Guidelines. Also responsible for presenting review findings to the SSC and other Council bodies as directed by the appointing Council.

Analytical Team (Assessment Agency): Responsible for presenting assessment results, fulfilling panel requests for additional analyses or model corrections in accordance with SEDAR guidelines.

Data Presenters: (Assessment Agency and Council Representatives) Responsible for presenting data overviews to the panel. Task may be filled by members of the Analytical Team.

Assessment Workshop Representative: (Council Appointee) Responsible for representing the Assessment Workshop Panel's positions at the Review Workshop, including assisting the analytical team in addressing Review Panel questions if necessary.

Rapporteur (SEFSC; 1 per assessment): Responsible for keeping notes on panel discussion of assigned species.

Review Workshop Participant Information

Serving as a review workshop panelists is a considerable time commitment that requires more than simply the daily sessions of the review workshop. Panelists will need to set aside time in the weeks prior to the workshop to review data and assessment documents. During the workshop, time beyond that of the scheduled daily sessions may be required to complete workshop tasks and reports. Time is required following the workshop to review and finalize panel reports.

Review panelists are expected to prepare workshop reports and should come prepared with a laptop computer for drafting text and possibly conducting additional analyses and data summarizations.

The SEDAR Steering Committee and SEDAR Coordinator establish deadlines for document submission. SEDAR staff distributes working documents and support materials (agenda, participant instructions) to workshop participants, typically two weeks prior to the workshop.

3.5 Summarized SEDAR Workshop Responsibilities

SEDAR staff works with Council administrative staff to secure meeting and lodging space and provide staff support for the workshops.

Councils appoint participants from their SEDAR Advisory Pool, issue invitations to those whom they appoint, and provide the SEDAR coordinator with a list of appointments and current contact information.

The SEFSC Director and SE Regional Administrator designate members of their staff to participate in Data and Assessment Workshop Panels and provide the SEDAR Coordinator with a list of designated participants. Each should designate a member of their staff who will ensure appointments are made and coordinate internal communication regarding SEDAR operations and responsibilities.

The SEFSC Director may appoint additional experts (such as university researchers, international experts, and NOAA Fisheries employees from outside the SE Region) for Data and Assessment Workshop panels as necessary to complete assigned Terms of Reference and ensure adequate expertise is available at each workshop.

SEDAR and Council staff provide administrative support for workshops, including recording proceedings.

Each Workshop chair shall prepare an itemized lists of tasks and expectations that are to be completed following each workshop. This list shall identify specific products, those responsible for providing products, and deadlines. This list shall be provided to Council, SEFSC, and SERO SEDAR operations contacts as appropriate.

SEFSC provides rapporteurs for Review Workshops, typically 1 rapporteur for each assessment

The assessment team and lead analyst are responsible for presenting technical characteristics of the assessment at the Review Panel.

A Council-appointed member of the Assessment Workshop Panel is responsible for representing the assessment workshop panel at the review workshop.

SEDAR staff distributes meeting materials. Authors are responsible for distribution of any meeting materials that are not provided by stated deadlines.

SEDAR staff submits Federal Register Notices. Council staff may review the FRN before submission.

The SAFMC provides travel orders for all eligible Council-appointed participants.

The lead Council for each SEDAR project is responsible for reviewing and approving the specific Terms of Reference for each workshop in the project. The SEDAR coordinator will provide draft Terms of Reference based on these guidelines.

4. General Policies

4.1 Management Advice

SEDAR is intended to improve the quality of scientific advice provided to management entities in the Southeast Region. An important component to improving science is maintaining separation of management and science. SEDAR workshop panels are charged with considering biological and technical aspects of stock assessments and basing their decisions upon the scientific merit of the alternatives proposed. Decisions should never be based on possible management outcomes or regulatory impacts.

At no point during the deliberations of any SEDAR workshop should the panel consider the implications of an assessment or assessment decision upon future management actions, resource users, or social and economic circumstances. Any participants who embark upon such discussions will be notified by the workshop chair that such deliberations are beyond the scope of SEDAR workshops and explicitly and intentionally prohibited. If such issues continue to be raised and notices to the contrary are ignored, the workshop Chair, Council staff, and Council members present are authorized by the Steering Committee to ask the offending individual to leave the workshop. If the individual refuses to leave the workshop upon such a request, the Chair shall be under no obligation to recognize them during further workshop panel discussions.

Additionally, SEDAR Workshop Panels are not approved to provide specific management advice. “Specific advice” includes any recommendations that a council take particular actions such as seasonal closures or specific bag limits or size limits, any recommendations of specific values for exploitation or harvest limit changes, or any recommendations regarding specific catch limits other than providing an Acceptable Biological Catch (ABC) applicable to the entire stock.

These policies are not intended to imply in any way that management advice is not necessary or that social and economic considerations are not important. Rather, the intent is to acknowledge several important facts of the Council SEDAR process: (1) consideration of management impacts is beyond the scope of and charge to SEDAR panels; (2) SEDAR specifically strives to separate management considerations from scientific decisions; (3) SEDAR Panel participants are selected based on technical, biological, and assessment knowledge, not social, economic, and management knowledge; and (4) consideration of social and economic consequences is specifically mandated to the Councils and various Council Committees composed of experts qualified to evaluate the social and economic consequences of management actions.

4.2 SEDAR Documents

The SEDAR process generates many documents, ranging from simple descriptions of sampling projects to complete stock assessments. The SEDAR document numbering system provides a tool for organizing and tracking submitted documents. The SEDAR Document Series includes three types of documents: Working Papers, Research

Documents, and Assessment Reports. Working papers are original works prepared for a SEDAR workshop. Research Documents are peer reviewed publications provided or reviewed during SEDAR workshops. Assessment Reports are the combined data, assessment, and review workshop reports.

Starting with the fourth SEDAR, Atlantic and Caribbean Deepwater snapper grouper, documents prepared for SEDAR workshops follow the SEDAR document series numbering convention. Documents are numbered separately for each workshop in a SEDAR project. The SEDAR coordinator will maintain the master document list and issue document numbers to authors. Each SEDAR working paper should list an associated author and date. Working papers may be revised or updated after initial submission. The date of each revision should be indicated on the cover page of each revised document. Additional specifications for the SEDAR document series are provided in Appendix C.

SEDAR is a public process and therefore all documents will be made available to any member of the public upon request. Working papers, Research Documents, and Assessment Reports will be distributed to all workshop participants, those Councils involved in the particular assessment, the SERO and the SEFSC. All documents will be posted to the SEDAR website as "pdf" files. The only exception to this is for any research documents protected by copyright regulations that prohibit website posting and distribution.

4.3 Treatment of Confidential Data

SEDAR is considered a public process and every effort is made to ensure that all participants have equal access to data and reports and that the overall process is open and transparent. However, in the course of stock assessment and fisheries data analysis, it is at times necessary to conduct analyses on data that are considered confidential and which therefore may not be distributed to the general public. Such data should be aggregated in a manner consistent with confidentiality requirements before being included in any SEDAR working documents or assessment reports as such reports will be publicly available and posted on the internet. Those researchers working with confidential datasets are responsible for ensuring that only information that can be publicly disseminated is included in SEDAR reports and any documents submitted for consideration by a workshop panel during a SEDAR workshop. Datasets containing confidential data shall not be loaded onto publicly accessible locations on the SEDAR LAN's that are available at SEDAR workshops or onto any SEDAR website locations. Any SEDAR workshop panelist that lacking clearance to access confidential datasets and who desire such access must follow the standard protocols of the agency managing the data to request access. Appointment to a SEDAR panel is not intended in any way to circumvent any agency confidentiality requirements and does not in any way provide default clearance to access confidential data.

4.4 Dissemination of SEDAR reports

SEDAR staff will provide the final assessment reports and all working papers prepared during the project to each Council involved in a given SEDAR project to the Councils involved in the assessment, the SEFSC Director, and the SE Regional Administrator. A cd containing all documents, submitted datasets, and working analyses

provided to each workshop in a project will be provided to the Council, SEFSC Director, and SE Regional Administrator. Each Council is responsible for any further distribution of the reports and working papers to their SSC, Council, Advisory Panels, and other committees as necessary. Final reports and working papers will be posted on the SEDAR website.

Reports of each SEDAR workshop are made available to the public and other non-participants as they are finalized. Typically, this results in the data workshop report being distributed around the time of the assessment workshop and distribution of the review workshop reports following conclusion of the review workshop. SEDAR working papers and reference documents are distributed at the conclusion of each workshop unless the workshop panel recommended changes or additions. Draft reports for all workshops are circulated among workshop panels for review and editing purposes, and provided to appointed participants in subsequent workshops for consideration and evaluation. Draft reports are not made available to the general public or workshop observers.

The final SEDAR report containing the complete documentation from all workshops is provided to the Councils once the review workshop reports and any supporting documentation are submitted. Typically this occurs between 6 and 8 weeks following conclusion of the review workshop.

4.5 Model Acceptance Criteria

To prevent errors in model code and discourage computer programming mistakes, the SEDAR Steering Committee requires that analysts use NMFS National Assessment Toolbox assessment models whenever possible. Other accepted, proven, and validated fisheries assessment models may also be considered, such as those used by various international scientific bodies such as ICES or ICCAT. Basic program documentation and manuals should be provided for all models offered during SEDAR workshops.

The Steering Committee further acknowledges that many Southeast species lack sufficient data for assessment through standard models and therefore will allow custom-programmed models for SEDAR assessments under the following conditions:

1) complete documentation and code must be provided;
2) an executable version of the program and all necessary input and control files must be provided to workshop participants;
3) the custom code/application used must be validated through application of known outcome datasets and such results must be provided as part of the assessment documentation; *(may be met through reference documents)*
4) justification for use of custom programming in lieu of readily available models must be provided in the assessment documentation.

Analysts who develop a particular model that proves useful for multiple SEDAR assessments are encouraged to submit the model for inclusion in the NMFS toolbox.

4.6 Continuity Models

The SEDAR process requires evaluation and explicit approval of all stock assessment components and decisions. SEDAR benchmarks are intended to be completely new assessments during which all past decisions and recommendations are

reconsidered. However, it is critical to maintain a linkage between previous and current assessment efforts and, in the event assessment results change, to provide some insight as to whether such changes are largely due to changes in basic datasets or changes in assessment methodology. Therefore, each benchmark SEDAR assessment shall include a 'continuity model' that, to the extent possible, is an identical replication of the previous assessment updated to include the most recent available data.

4.7 SEDAR Administrative Record

The SEDAR Administrative Record, including the official records of SEDAR workshop and Steering Committee meetings, will be housed at the SEDAR office at the SAFMC and managed by the SEDAR coordinator and Administrative Assistant. The Administrative Record from each SEDAR project will include the following:

- all documents distributed at SEDAR workshops;
- electronic copies of any datasets, programs, and code provided to participants;
- administrative correspondence including travel notices, Federal Register Notices, document distribution memos, workshop agendas, and participant sign-in sheets;
- media containing recorded workshop proceedings.

The Administrative Record of the Steering Committee will include administrative correspondence such as Federal Register Notices, document distribution memos, and meeting notices; all briefing documents; summary motions and consensus statements; and media containing recorded meeting proceedings.

Written transcripts of workshop proceedings and steering committee meetings will be prepared upon written request by any SEDAR Steering Committee member.

4.8 Paperless Policy

SEDAR workshops rely on electronic distribution of materials to save paper and postage costs and reduce administrative workloads. A wireless LAN is set-up at each workshop to facilitate document and dataset exchange and distribution. Final reports and working papers are posted on the SEDAR website. Final workshop documentation is provided to the Councils, SEFSC, and SERO on cd in accordance with the deadlines and criteria established in this document.

Hard copies or cd's of workshop materials will be provided to any workshop panelist upon request.

4.9 SEDAR Website

General process information and final assessment documentation is distributed via the SEDAR website (http://www.sefsc.noaa.gov/sedar/) which is hosted by SEFSC and administered by SEDAR Staff. Content is largely technical in nature, consisting of assessment reports, working papers, workshop presentations, and reference documents. Other postings include the SEDAR schedule of events, these guidelines, compiled research recommendations, and links to the Councils and state agencies in the Southeast

Region. General information on stock assessment and fisheries science is also posted to provide a resource for those participants who lack formal scientific training.

5. SEDAR Assessment Classifications

5.1 Benchmark Assessments

Standard SEDAR assessments are considered benchmarks that are solicited for the most pressing management issues and first time assessments. Stocks assessed prior to SEDAR should be assessed through a SEDAR benchmark, in accordance with the guidance established in this document, before any updates to previous assessments are considered. When a stock is assessed through a SEDAR benchmark assessment, all previous decisions, methods, and datasets shall be reconsidered.

5.2 Assessment Updates

Once an assessment is approved through SEDAR, the basic framework of input data and model configuration may be updated in the future by adding additional years of data. It is intended that the update process should be considerably less time consuming and require less manpower than benchmark assessments. Minor modifications and changes to input data and modeling techniques may also be incorporated in updates, although in all instances a strict update, defined as only including incorporation of additional data into the previous framework, will be prepared.

The general update process is described below. Each Council is allowed latitude to develop a more detailed process to conduct assessment updates.

The SEDAR Steering Committee will approve and schedule requests for assessment updates and determine the entity which will take lead in conducting the assessment update. The lead Council shall establish a specific submission date for the final update report.

SEDAR staff shall provide documentation including the process overview, general scheduling and generic terms of reference for consideration by the Council and its SSC.

The lead Council will provide administrative support for the update workshop and any additional meetings or conference calls required to complete the update. This will include providing workshop invitations and travel information notices to appointed participants. This will also include recording the workshop and providing copies of the recordings to SEDAR staff for inclusion in the Administrative Record.

The Council or Councils involved in the update assessment shall make appointments to the update workshop panel in accordance with their SEDAR appointment guidelines. The Regional Administrator and Science Center Director shall designate appropriate participants from their staff.

Oversight and review of assessment updates will be provided by each Council's SSC. Council SSC's shall establish specific terms of reference for the update assessment, including determining acceptable changes and modifications to the benchmark assessment procedures and analyses.

The update assessment shall provide current values for all inputs and outputs provided in the original benchmark assessment. The Council shall appoint a update workshop chair, and it is suggested that the chair be a representative of the SSC. The chair or another council designee shall present workshop findings to their council, including its various committees as requested by Council leadership. The lead analyst for the update assessment shall provide the technical presentation required for the SSC review, similar to the presentations expected at a benchmark review panel.

Prior to beginning the update, the SSC shall provide a written report to the Council describing the terms of reference and suggested schedule for the update. Following the update, the SSC shall provide a written Consensus Summary and Summary Report to the Council detailing their review of the update. The Council shall provide copies of these reports to the SEDAR Program Manager for inclusion in the SEDAR Administrative Record. The Consensus Summary and Summary Report should follow the same format as those prepared for SEDAR benchmark assessments.

All documentation standards of SEDAR workshops apply to assessment updates. Working papers, Assessment Reports, and the Consensus Summary and Summary Report shall be provided to the SEDAR coordinator for inclusion in the Administrative Record and website posting.

6. Relationship of SEDAR to the Councils and Council Committees.

SEDAR attempts to co-exist within the existing framework of Council and Commission Committees and advisory bodies. A primary goal of SEDAR is to provide best available science for consideration by the Council and their advisory bodies. Nothing in these guidelines is intended to prohibit any Council or Commission from pursuing its own chosen process of technical review and advice.

Each Council may review the products of SEDAR stock assessments in accordance with its rules and procedures. Each Council is allowed latitude in determining how SEDAR assessment products are presented to the Council and its technical and advisory bodies.

For the Interstate Commissions and state agencies in the Southeast, SEDAR provides a source of independent peer review of stock assessment products.

6.1 Council & Committees

Council technical advisory body members (including Science & Statistical Committees as well as various additional committees devoted to particular areas such as stock assessment or social and economic issues) are included in Council SEDAR Advisory Pools and appointed to workshops and therefore perform, within the SEDAR process and during SEDAR workshops, functions currently outlined in a number of Council FMPs. This includes producing an assessment report and recommending management and SFA parameters such as ABC, Bmsy, Fmsy, MFMT, and MSST as necessary to meet SFA requirements. It is the intention of the Steering Committee that SEDAR reports serve as the required assessment reports to meet council guidelines and mandates, thereby avoiding the need for Council Committees to draft additional separate reports.

NOAA General Counsel recommended that Council FMP's and Amendments incorporate the SEDAR process as outlined in these Guidelines as the source of assessment information and SFA criteria. Each Council is given latitude in deciding how SEDAR reports will be reviewed once the SEDAR project is completed and the stock assessment report finalized and submitted.

Separation of responsibility for specific management recommendations between SEDAR panels and Council SSC's and other standing committees is intentional. It is the expressed intent of the SEDAR Steering Committee and the cooperating Councils that no specific management recommendations be included in SEDAR reports. The management related advice provided by SEDAR shall be restricted to recommended values for designated management criteria, recommendations of appropriate management criteria when requested, statements of stock status, and evaluations of the biological effects of past management actions.

Role of the SSC

Council standing Scientific and Statistical Committees, in accordance with Section 302 of the Magnuson-Stevens Act, "assist in the development, collection, and evaluation of such statistical, biological, economic, social, and other scientific information as is relevant to such Council's development and amendment of any fishery management plan". SEDAR Assessment Reports, Review Panel Reports, and supporting documents submitted and prepared during the Workshops are provided to the appropriate Council for SSC review. Specific guidance for SSC review is provided by each Council. Individual Councils may also adapt this requirement to include review and action by their various other technical committees.

Once a SEDAR benchmark is completed it is presented to the appropriate Council SSCs for consideration. The goal of SEDAR is to produce, with involvement of SSC members, AP members, agency staff, and constituents, an assessment which represents the best available science. Therefore, the SSC shall review the report and the process, but is neither expected nor obligated to provide an exhaustive and detailed technical review such as was provided by the SEDAR independent review panel.

During review of the assessment, the SSC may request further evaluation of assessment uncertainties and alternative projection scenarios if deemed necessary to develop required management recommendations. If the SSC determines that a mistake has been made in the assessment model or in any input datasets, and further determines that such mistakes significantly impact the assessment results, in particular the magnitude and direction of required management, the SSC shall prepare a written report for submission to the Council and SEDAR Steering Committee which details (1) the nature of the mistake, including appropriate documentation of the correct information; (2) specific concerns related to the mistake, including the estimated parameters that are affected; and (3) the recommended process and timeline for correction, review, and reconsideration by the SSC.

Upon completion of its review, the SSC shall consider the SEDAR assessment findings and the results of any additional supplementary analyses requested in developing specific management recommendations as obligated under Council procedures and the Magnuson-Stevens Act. Representatives of the analytical team will assist those SSC

members assigned to a particular SEDAR assessment project in making a detailed technical presentation of the assessment to the full SSC during the SSC review and recommendations phase.

Once an assessment is presented to the SSC, the SSC is responsible for presenting to their Council their evaluation of the adequacy of the assessment, their interpretation and summary of the assessment methods and findings, and their recommendations regarding appropriate actions. A representative of the SSC shall be responsible for presenting SEDAR assessments to the Council and any standing Council committees as necessary. Councils should consider this responsibility when making appointments to SEDAR workshops, especially the review workshop.

Councils should make every effort to schedule their meetings such that the number of assessment presentations required of the analytical team is minimized. Councils should schedule meetings to accommodate a technical presentation to all of their various technical bodies at once, rather than individual presentations across several meetings of the various bodies. Analytical representatives can be on hand to answer questions when the assessment is presented to the Council, but are not obligated under SEDAR guidelines to lead the presentation.

6.2 Interstate Commissions

The Atlantic States Marine Fisheries Commission's Stock Assessment Committee reviewed the Commission's internal process for conducting stock assessments in relation to SEDAR, and recommended that data workshop and stock assessment workshops become a standard part of the Commission stock assessment process. The additional input that SEDAR provides from both data holders and stakeholders will improve buy-in and transparency from the earliest part of the assessment process. ASMFC technical committees or stock assessment subcommittees conduct assessment workshops with an expanded number of participants. Federal, state, university, industry, and other outside experts are invited to participate in evaluating the data inputs to the model, as well as conducting the assessment model. Assessments prepared through ASMFC may be reviewed by SEDAR Review Workshop Panels.

7. Public Participation

SEDAR is a Council process, and as such, public participation is encouraged. SEDAR meetings are open to the public and advertised by the Councils and through the Federal Register. To clarify the role and nature of public participation, the following is noted on SEDAR workshop agendas: "Public participation during SEDAR workshops is handled similar to current Council technical and committee meetings, in that no formal period of public testimony is scheduled. Instead, the Chair is free to call on the public for comment as necessary and appropriate during workshop deliberations. Written public comment should be submitted in accordance with the guidelines of the host Council".

During all workshops, interested parties are permitted to comment on discussion items as the meeting proceeds. The degree of formality typically varies with workshop, with data workshops providing the most Written comments are handled in accordance with guidelines established by each Council.

8. Appendices

8.1 General Terms of Reference

I. Data Workshop

1. Characterize stock structure and develop a unit stock definition. Provide maps of species and stock distribution.
2. 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 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. Evaluate 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 the reflects the decisions and recommendations of the Data Workshop. Review and approve the contents of the input spreadsheet within 6 weeks prior to the Assessment Workshop.
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.

II. Assessment Workshop

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. 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)

9. Evaluate the results of past management actions and, if appropriate, probable impacts of current management actions with emphasis on determining progress toward stated management goals.
10. Provide recommendations for future research and data collection (field and assessment); be as specific as practicable in describing sampling design and sampling intensity.
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 Workshop 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, a range of ABC, 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, including the Summary 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 Consensus 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 Consensus 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.

8.2 SEDAR Assessment Report Outline

The following outline provides a guide to desired contents and organization of SEDAR Assessment Reports. Each SEDAR workshop prepares a complete Workshop report that ultimately becomes one section of the SEDAR Assessment Report. The SEDAR Assessment Report is therefore separated into five sections: Section I summarizes the SEDAR process, management history, and assessment background; Section II documents input data and is drafted by the Data Workshop Panel; Section III documents the assessment methods and results and is drafted by the Assessment Workshop Panel; Section IV documents the Review Workshop actions and is prepared by the Review Workshop Panel, and Section V. contains any addenda or revisions that occur following the review. An Assessment Report will be prepared for each stock assessed during a project.

I. Introduction

Cover Page

Table of Contents

1. SEDAR Process Description — SEDAR STAFF
2. Management Overview — COUNCIL/SERO STAFF
   - 2.1 Management Unit Definition
   - 2.2 Regulatory History
   - 2.3 Current Management Criteria and Stock Benchmarks
3. Assessment History & Review — Assessment Agency
4. Regional Maps
5. Summary Report — AW Panel/Review Panel/SEDAR Staff

Stock Distribution and Identification

Summary of the unit stock and its geographic distribution.

Assessment Methods

Summary of the assessment method.

Assessment Data

Summary of input data sources.

Catch Trends

Summary of catches by fishery

Fishing Mortality Trends

Summary of fishing mortality estimates

Stock Abundance and Biomass Trends

Summary of abundance, biomass, and recruitment

Status Determination Criteria

SFA and management criteria recommendations and values.

Stock Status

Declaration of stock status, based on current criteria and panel recommended criteria..

Projections

Summary of stock projections.

ABC

Allowable Biological Catch (ABC) Range

Special Comments

Additional comments of importance

Sources of Information

Source of results contained in summary report (i.e., workshop report or addendum)

Tables:

Catch and Status

Summarize recent stock and fishery conditions: catch and discards by fishery sector, fishing mortality estimates, stock abundance and biomass, spawning stock biomass, recruitment, and stock status (e.g., F/Fmsy, B/Bmsy). Values will be provided by the analytical team.

Stock Status Criteria

Summarize recommended or mandated benchmarks &values

SUMMARY FIGURES:

1. Landings
2. Exploitation
3. Stock Biomass
4. Stock-Recruitment
5. Control Rule

6. Projections

II. Data Workshop Report *(Developed by Data Workshop Panel)*

Cover Page

Table of Contents

1. Introduction *(Provided by SEDAR Staff)*
   - 1.1. Workshop Time and Place
   - 1.2. Terms of Reference
   - 1.3. List of Participants
   - 1.4. List of Data Workshop Working Papers
2. Life History
   - 2.1. Overview (Group Membership, Leader, Issues)
   - 2.2. Stock Definition and Description
   - 2.3. Natural Mortality
   - 2.4. Discard Mortality
   - 2.5. Age
   - 2.6. Growth
   - 2.7. Reproduction
   - 2.8. Movements & Migrations
   - 2.9. Meristics & Conversion factors
   - 2.10. Comments on adequacy of data for assessment analyses
   - 2.11. Itemized list of tasks for completion following workshop (Include expected completion dates and responsible parties)
   - 2.12. Literature Cited
   - 2.13. Tables
   - 2.14. Figures
3. Commercial Fishery Statistics (may be subdivided by gears/fleets)
   - 3.1. Overview (group membership, leader, issues, Map of fishery area)
   - 3.2. Commercial Landings
   - 3.3. Commercial Discards
   - 3.4. Commercial Effort
   - 3.5. Biological Sampling
     - 3.5.1. Sampling Intensity Length/Age/Weight
     - 3.5.2. Length/Age distributions
     - 3.5.3. Adequacy for characterizing catch
     - 3.5.4. Alternatives for characterizing discard length/age
   - 3.6. Commercial Catch-at-Age/Length ; directed and discard
   - 3.7. Comments on adequacy of data for assessment analyses
   - 3.8. Itemized list of tasks for completion following workshop (Include expected completion dates and responsible parties)
   - 3.9. Literature Cited
   - 3.10. Tables

3.11. Figures
4. Recreational Fishery Statistics(May be further divided by Sectors, e.g., headboat, private, charter)
4.1. Overview (group membership, leader, issues, Include map of fishery area)
4.2. Recreational Landings
4.3. Recreational Discards
4.4. Biological Sampling
4.4.1. Sampling Intensity Length/Age/Weight
4.4.2. Length – Age distributions
4.4.3. Adequacy for characterizing catch
4.4.4. Alternatives for characterizing discards
4.5. Recreational Catch-at-Age/Length; directed and discard
4.6. Recreational Effort
4.7. Comments on adequacy of data for assessment analyses
4.8. Itemized list of tasks for completion following workshop
(Include expected completion dates and responsible parties)
4.9. Literature Cited
4.10. Tables
4.11. Figures
5. Measures of Population Abundance
5.1. Overview (Group membership, leader, issues)
5.2. Fishery Independent Surveys
5.2.1. Methods, Gears, and Coverage (Map Survey Area)
5.2.2. Sampling Intensity – Time Series
5.2.3. Size/Age data
5.2.4. Catch Rates – Number and Biomass
5.2.5. Uncertainty and Measures of Precision
5.2.6. Comments on Adequacy for assessment
5.3. Fishery-Dependent Measures
5.3.1. Methods of Estimation
5.3.2. Sampling Intensity
5.3.3. Size/Age data
5.3.4. Catch Rates – Number and Biomass
5.3.5. Uncertainty and Measures of Precision
5.3.6. Comments on Adequacy for Assessment
5.4. Consensus Recommendations and Survey Evaluations
5.5. Itemized list of tasks for completion following workshop
(Include expected completion dates and responsible parties)
5.6. Literature Cited
5.7. Tables
5.8. Figures
6. Research Recommendations
6.1. Life History
6.2. Commercial Statistics
6.3. Recreational Statistics
6.4. Indices
7. Submitted Comment
(Any written comment or opinion statements submitted by participants or observers)

III. Stock Assessment Workshop Report *(Developed by Assessment Workshop Panel)*

i. Cover Page

ii. Table of Contents

1. Workshop Proceedings
1.1. Introduction *(Provided by SEDAR Staff)*
1.1.1. Workshop Time and Place

1.1.2. Terms of Reference
1.1.3. List of Participants
1.1.4. List of Assessment Workshop Working Papers

1.2. Panel Recommendations and Comment (*Developed by AW Panel)*
Consensus comments & recommendations, very similar to assessment panel reports prepared prior to SEDAR.

Each Term of Reference should be addressed directly and sequentially:
1.2.1. Term of Reference 1
to
1.2.x Term of Reference X..

2. Data Review and Update *(Lead analyst or data manager)*
Input data as used in assessment modeling should be tabulated here. Also address deviations from DW; Resolution of issues raised by DW; document any additional data analyses.

3. Stock Assessment Models and Results (*Prepared by Analyst for each model; may be finalized after AW)*
3.1. Model 1 (Repeat to 3.X; X = # models considered. Model 1 is typically the 'continuity case')
3.1.1. Model 1 Methods
3.1.1.1. Overview
3.1.1.2. Data Sources (*State sources and tabulate all data as used in the model - even if replication of some information in the data workshop report section)*
3.1.1.3. Model Configuration and Equations (*Describe the configuration, explicitly state assumptions, list equations. If a standard accepted model (e.g. NFT, ICCAT, ICES, FAO, equations requirement may be accommodated by citation of program documentation.)*
3.1.1.4. Parameters Estimated (*list all model estimated parameters)*
3.1.1.5. Uncertainty and Measures of Precision (*Describe the methods used to evaluate sources of error- process, observation, etc)*
3.1.1.6. Benchmark / Reference points methods
3.1.1.7. Projection methods (*Describe methods, including assumptions)*
3.1.2. Model 1 Results
3.1.2.1. Measures of Overall Model Fit
3.1.2.2. Parameter estimates & associated measures of uncertainty (*Provide table of all model parameters and their values. Include SE, CV, or other appropriate measures of variation)*
3.1.2.3. Stock Abundance and Recruitment
3.1.2.4. Stock Biomass (total and spawning stock)
3.1.2.5. Fishery Selectivity
3.1.2.6. Fishing Mortality
3.1.2.7. Stock-Recruitment Parameters
3.1.2.8. Evaluation of Uncertainty (*Broader than 3.1.2.2; evaluation of assumptions, model configurations etc. May include retrospective analyses, sensitivities)*
3.1.2.9. Benchmarks / Reference Points / ABC values (*Provide the management parameters)*
3.1.2.10. Projections
3.1.3. Discussion
3.1.4. Tables
3.1.5. Figures
3.1.6. References

4. Submitted Comment
(Any written comment or opinion statements submitted by participants or observers)

IV. Review Workshop Report

Cover Page

Table of Contents

1. Introduction *(Provided by SEDAR Staff)*
1.1. Workshop Time and Place

1.2. Terms of Reference
1.3. List of Participants
1.4. List of Review Workshop Working Papers & Documents

2. Consensus Report *(Completed by Review Panel)*
2.1. Statements addressing each TOR
2.2. Summary Results of Analytical Requests *(Sensitivities, corrections, additional analyses etc)*
2.3. Additional Comments (*if necessary, to address issues or discussions not encompassed above)*
2.4. Panel Comments and Recommendations on the SEDAR Process
2.5. Reviewer Statements

3. Reports of the CIE contractors
4. Submitted Comment
(Any written comment or opinion statements submitted by participants or observers)

V. Addenda

Revisions or corrections to preceding sections.

Additional documentation of final review model configuration if required.

8.3 Recommended Tables and Figures

All input data and model configuration information should be included in the assessment report in tabular form. Tables that are included in a workshop working paper need not necessarily be replicated in the report, especially those tables that support information summarized elsewhere in the workshop report. Figures should be used to support the assessment and describe the input data, but no input data shall be presented solely in figure format and tables shall be provided for all data presented in figures. Large datasets such as length distributions or age-length keys may be included as appendices or provided in well organized spreadsheets that are submitted along with other workshop materials. Preliminary work and accessory tables in working papers may also be cited. However, all information required as input data for the chosen assessment models shall be listed in the report tables in the level of detail required for the assessment. The basic rule of thumb to follow is that the assessment report should contain all data necessary for one to duplicate the stock assessment.

The following list indicates the general information to be included in the tables of the assessment report. In some instances the list may include information (such as fecundity) or suggest a level of detail (such as 'by age') that is not feasible given the available data. Several listed items may be included in a single table. It is recognized that the specifics of each table can and will vary by assessment. The required reporting detail will be dictated by both data availability and modeling approach. For example, if the assessment model is based on annual landings at length by gear, then the report must include a table of landings by gear, year, and length class. Further, a model based on length may require that life history characteristics such as mean weight be reported by length class as well as age. Fisheries that have 'fishing years' that do not correspond to calendar years will require reporting of some data in both calendar and fishing year.

INPUT DATA TABLES & FIGURES (Data Workshop Report)

<u>Life History</u>
- Mean weight & length
- Maturation & sex ratio schedules
- Fecundity
- Age-Length/weight plots, age sample N, age distributions.
- Growth models
- Conversion factors
- Natural Mortality ests.
- Movement and Distribution Figures
- Release mortality, depth relation

<u>Catch Statistics</u>
- Landings data 'as provided'
- Details to support 'adjustments'
- Final total annual landings, Number and Weight
- Landings by sector (i.e., comm and rec)
- Landings by month
- Landings by gear/sector
- Landings by state/jurisdiction/sector
- Discards, discard losses, release mortality, by sector/gear
- Catch mean weights, by sector/gear Length distributions, by sector/gear/year, season
- Biological sampling details - N samples, trips, lengths, weights, ages, % trips sampled
- Economic Information (price per pound, etc)

<u>Dependent Surveys and Effort</u>
- Total effort measures, by fishery, gear, jurisdiction, month
- Associated landings (esp. if differ from basic stats due to adjustments)
- Survey CPUE time series, nominal and modeled

<u>Independent Surveys</u>
- Survey Effort
- Survey Coverage - geo (maps) and spatial
- Survey length/age distribution
- Survey CPUE, Catch
- Survey CPUE time series as input to model

ASSESSMENT INFORMATION (Assessment Workshop Report)

MODEL INPUTS

Actual model inputs:

- Total catch and discard (at age, by area, gear, etc.)
- Survey CPUEs (at age, etc)
- Age Distributions
- Length Distributions
- Maturity, fecundity, sex ratio schedules
- And any other relevant inputs required by the model

Model specifications

- Complete list of input specifications and parameters required for the model
  - e.g., fitting methods, min/max limits, ages for averaging, assumptions
- List of all parameters estimated
- List of model equations if a 'custom' model; provide reference otherwise

Measures of precision and fit

- Error components, contribution to total error
- Sums of squares, variances, CV's, and other statistical measures for est. values
- Error weighting values
- Residuals (plotted)
- Time series of observed and predicted values for fitting/tuning criteria (plotted)

Population Estimates

- Total annual abundance
- Abundance at age
- Recruitment
- Biomass, annual and by age
- Spawner abundance and biomass, annual and by age
- Fecundity, total annual and by age

Exploitation

- Fishing mortality, instantaneous and annual, "Fully recruited" and by age
- Selectivity or partial recruitment
- Estimated landings and discards, and by age/length if appropriate

PROJECTIONS AND BENCHMARKS TABLES

Inputs

- Catch or exploitation assumptions
- Starting population values
- Fishery characteristics – selectivity, limits, weights
- Stock-recruit model or assumption, reproductive info

Projection Results

- Population abundance
- Recruitment
- Biomass
- Catch
- Exploitation

Benchmark Results

- SFA criteria values, confidence intervals
  - *Fmsy, MSST, MFMT, Bmsy, Generation time estimate*
  - ABC Range

8.4 SEDAR Document Series

The SEDAR process generates many documents, from simple descriptions of sampling projects to complete stock assessments. Organizing and keeping an administrative record of SEDAR documents requires a tracking system that can accommodate these many different document types. Starting with the fourth SEDAR, Atlantic and Caribbean Deepwater snapper grouper, documents prepared for SEDAR workshops follow the SEDAR document series numbering convention.

8.4.1 Document Types

Working Papers

Working Papers are the backbone documents of the Data and Assessment workshops. Through these informal papers authors describe data collection programs; present preliminary analyses of assessment components such as surveys, CPUE indices, and age composition; summarize life history information, and develop general descriptions of fisheries and landings. Ideally, the working papers contain much of the text needed to draft various assessment report segments, and the authors can 'cut and paste' relevant sections. There is no strict format imposed for Working Papers; as long as the relevant information is provided authors are encouraged to follow a standardized journal format of their choosing. Although working papers are not peer reviewed, they do provide an authorship opportunity for those who do much of the work on the stock assessment, and ideas developed in the working papers and advanced during the Workshop discussions may ultimately lead to peer-reviewed articles.

Documents in the Working Papers series become part of the SEDAR Administrative Record and are available upon request from the SEDAR staff. Authors shall submit electronic copies that are archived as .PDF files and posted to the SEDAR website. Those not available electronically will be scanned to create .PDF files.

The numbering convention includes a workshop designation, SEDAR series number, and a document number. For example, SEDAR4-DW-1 would designate working paper number 1 generated for the Data Workshop of the fourth SEDAR.

Research Documents

Research Documents include any peer reviewed articles provided as general background or documentation of data sets and assessment methods. Research documents will be numbered for tracking and distribution purposes, but should be cited appropriately (as author/year) if referenced in a SEDAR Assessment Report.

Documents provided for consideration at workshops and included in the Research Document series become part of the SEDAR Administrative Record and are available upon request from the SEDAR staff. If electronic copies are not available, documents will be scanned and converted to .PDF.

Research documents are numbered sequentially within a SEDAR project. The numbering convention includes a workshop designation, the letters 'RD' to denote research document, and a document number. For example, SEDAR4-RD-1 would designate research document number 1 of the fourth SEDAR.

Assessment Reports:

Assessment Reports are the final products of the SEDAR process. Reports prepared by each individual workshop are compiled by SEDAR staff into a single document consisting of multiple sections devoted to each workshop. Report sections shall be submitted in Microsoft Word or compatible format. Assessment Reports are formatted according to the SEDAR Assessment Report Outline, as modified during the Workshops to meet the needs of the particular species or complex. Typically, a separate assessment report will be prepared for each species assessed in a SEDAR project.

Documents in the Assessment Reports series become part of the SEDAR Administrative Record and are available upon request from the SEDAR staff. Electronic copies are required so that the reports can be made available through the Internet.

The numbering convention includes the SEDAR series number, the designation 'AR' to indicate the Assessment Report series, and a document number. For example, SEDAR4-AR-1 would indicate Assessment Report 1 from the fourth SEDAR.

8.4.2 Working Paper Submission Guidelines

All SEDAR working papers shall be submitted to SEDAR staff electronically in Microsoft Word or compatible format. Submitting documents in an accessible format will allow SEDAR staff to correct the inevitable minor errors, such as spelling mistakes or document numbering errors, and to ensure appropriate revision tracking information is included in the document. Authors choosing to ignore this requirement will be responsible for making any and all minor formatting, document ID numbering, and editorial changes as necessary. SEDAR staff will convert the documents to .pdf formats before distribution to the workshop participants and posting to the SEDAR website.

Documents shall include a cover page including the title, authors name and address, submission date, record of any revisions, and SEDAR document number. Pages should be numbered, but no other headers or footers should be included. **All documents should include an abstract or executive summary.**

SEDAR document numbers will be provided by the SEDAR coordinator. Those wishing to submit documents for consideration at a SEDAR workshop should contact the Coordinator to request the next available document number.

SEDAR has not adopted any formal style guidelines. Working paper authors are at liberty to use any document style meeting their wishes or their agency requirements.

SEDAR working papers are considered final once they are made available to a workshop panel for consideration. Minor revisions and corrections are allowed to the original document, especially to correct issues identified by the workshop panel. Substantial changes or additional content should be submitted as separate documents or addenda to the existing paper to prevent confusion that stems from multiple versions of the same document. All revisions or additions to existing papers should be noted sequentially on the cover page with the appropriate date stamp. A summary of each revision, including the reason for the revision and a summary of the outcomes, should be included in the abstract or executive summary.

8.4.3 Document Distribution

All SEDAR documents are part of a public process, included in the SEDAR Administrative record, and made available to the public as necessary. **Authors are responsible for ensuring that presentations made during SEDAR workshop, SEDAR working papers, and SEDAR workshop reports contain no confidential data.** SEDAR documents, including working papers will be posted to the publicly accessible SEDAR website. All public document distribution will be made via electronic (.pdf) format.

Documents are distributed once they are considered final by the appropriate SEDAR workshop. Typically, this means SEDAR working papers are distributed following the workshop during which they were presented, although this may be delayed if the workshop panel recommends changes or revisions. The Data Workshop report segment is typically distributed following the assessment workshop, and the Assessment workshop report segment is distributed following the Review Workshop.

8.5 SEDAR Workshop Participation Guidelines

Concerns over selection and appointment of participants to SEDAR workshop panels and confusion surrounding the appointment process compelled the SEDAR Steering Committee to adopt expanded guidelines for workshop participation. One problem in particular involved uncertainty as to who is responsible for workshop panel appointments, as illustrated by members of special interest groups interested in participating in SEDAR workshops, particularly as review panelists, contacting the SEDAR Coordinator and the Councils to volunteer their services and request appointment to workshop panels. Other issues included uncertainty around those eligible for appointment to workshop panels and the process the Councils should follow in making appointments. A final concern involved identifying the range of expertise and knowledge necessary for each workshop panel to complete its charge.

The following guidelines are intended to clarify who may participate and how participants are selected. The goal is to provide enough formal guidance to ensure consistency and compliance with federal regulations and Council procedures, while preserving enough flexibility to respond to unforeseen circumstances. These guidelines will also help clarify the responsibilities of SEDAR staff and the Councils in identifying participants. Adhering to process and procedures in selecting participants is perhaps most critical for the Review Workshop, since this body has the task of establishing whether or not the assessment is technically sound.

NOAA General Counsel provided guidance on SEDAR participation when SEDAR was approved for all 3 Councils and NOAA Fisheries. This guidance stated that each Council would establish a SEDAR Advisory Panel (typically considered the SEDAR Pool) from which participants shall be selected for each workshop. All Workshop Panel participants appointed by a Council must be included in that Council's SEDAR Advisory Panel. The SEDAR Advisory Panel is governed by the same requirements as any other Council Panel. Employees of state and federal agencies, the Councils, and the Interstate Commissions must be appointed to the SEDAR Advisory Panel if they are to be appointed to a SEDAR Workshop Panel.

1. General Appointment Procedures

Participants for SEDAR workshop panels are appointed by the Councils from the membership of their SEDAR Advisory Panels. The Council requesting the assessment and having jurisdiction over the species assessed is responsible for appointing panelists. The SEFSC Director and SERO Administrator are responsible for submitting designees to the Council for appointment to workshop panels to provide expertise and represent their offices as appropriate.

In the event of joint jurisdiction, each Council with an interest makes appointments from within its SEDAR Advisory Panel. For a Review Workshop Panel where the number of panelists is loosely restrictive, when multiple Councils or Commissions have an interest in the species being assessed, the Councils and Commissions shall each agree to an equitable division of the available seats when the SEDAR project is approved by the Steering Committee.

Each Council is responsible for establishing guidelines and procedures for making appointments. It is not necessary for these guidelines and procedures to be identical for each Council. Each Council is responsible for ensuring that the participants it appoints are eligible under Council Advisory Panel procedures.

When soliciting participants and making appointments, Councils should clearly indicate the expected level of participation and the nature of the workshops as described herein. Participants appointed to Workshop Panels are expected to participate in the entire workshop. The structure of the SEDAR workshops is such that many decisions are not made until near the end, after considerable deliberation and analyses. Further, reports are often not finalized until several weeks following the meeting. All participants should be informed that participation may involve considerable time and effort and that workshop sessions may extend beyond normal working hours (e.g., evening sessions are possible at all workshops). It is especially critical that Review Workshop Panelists participate in all stages of the Workshop. The need to draft reports during the workshop and bring those drafts to the Panel for review throughout the workshop dictates that Review Panel seats cannot 'revolve' among several individuals as particular species are addressed. Those having specific knowledge or interest of a single species or issue better serve the process through participation in Data and Assessment Workshops, whereas those with broader knowledge and strong analytical expertise are most appropriate as Review Workshop Panelists.

2. Suggested Participants

The following sections describe in general terms the expertise that is typically required for each workshop panel. The classifications are neither obligatory nor restrictive. Each Council is responsible for making those appointments it deems necessary for the task at hand.

2.1 Data Workshop

The Data Workshop Panel is charged with reviewing the full spectrum of input data, including fisheries statistics, monitoring programs, life history, and management history. This requires individuals from many disciplines possessing a broad range of skills and expertise. It is also the point in the SEDAR process where the anecdotal knowledge and first person observations of experienced fishermen and constituents are the most useful.

Suggested Participants:

- SEFSC Assessment Scientists
- Other NMFS Assessment Scientists
- Council SSC representatives
- Council Assessment Panel representatives
- Council Socio-economic Panel representatives
- Council Advisory Panel representatives
- SERO representatives
- Council/Commission Technical staff
- State Agency researchers, biologists, data collectors, analysts

- University assessment analysts
- Life history researchers, from NMFS, State Agencies, or Universities
- Marfin research grant recipients
- NMFS General Canvass representatives
- MRFSS representatives
- State data collection representatives (e.g., trip ticket program, FIN)
- Logbook Program representatives
- SE Headboat Survey representatives
- Cooperative Monitoring Program representatives (e.g., MARMAP, SEAMAP)
- NGO representatives
- Independent or contracted consultants
- Fishery or constituent representatives

2.2 Assessment Workshops.

Assessment Workshop panels must complete the assessment model and prepare the results. This requires a high level of technical expertise, and Assessment Workshop Panels should be composed primarily of assessment scientists.

Suggested Participants

- SEFSC Assessment Scientists
- Other NMFS Assessment Scientists
- Council SSC representatives
- Council Assessment Panel representatives
- Council Socio-economic Panel representatives
- Council Advisory Panel representatives
- SERO representatives
- Council/Commission Technical staff
- State Agency researchers, biologists, data collectors, analysts
- University assessment analysts
- NGO representatives or designees
- Independent or constituent group contracted consultants
- Fishery or constituent representatives from outside the AP's

2.3. Review Workshops.

Review Workshop panelists include 3 reviewers appointed through the CIE, an independent reviewer appointed by each Council having jurisdiction over the stocks included in the assessments, and a chair appointed by the SEFSC Director. The Director is allowed wide latitude in selecting a chair, and may consider Federal employees outside the SEFSC, current and former SSC members, retired employees, state agency employees, and academia. The chair should not be an employee of the SEFSC or SERO.

8.6 Review of SEDAR Workload and Scheduling

I. Number of SEDAR Projects per year

The concept of 2 annual projects was endorsed by the Steering Committee in January 2004. The timing of these projects will be determined by the Steering Committee when it establishes assessment priorities. The particular labs assigned to a project will be determined by the SEFSC Director.

II. Assessments per project

Limiting SEDAR projects to 1 or 2 complete benchmark assessments was endorsed by the Steering Committee in January 2004.

III. Mixing of Jurisdictions or Separate Stocks of a Species

Limiting SEDAR projects to a single jurisdiction (Council), except when Councils have joint FMP's or in some other way share jurisdiction over a unit stock was endorsed by the Steering Committee in January 2003.

IV. Increasing Assessment Productivity.

The concept of establishing a hierarchical review process was endorsed by the Steering Committee in January 2004. SEDAR will consist of both benchmark and update assessments. The primary focus is on conducting benchmark assessments. A limited number of update assessments can also be accommodated. Specific details for conducting assessment updates are included in the procedures.

V. Project overlap

The SEDAR Steering Committee agreed in February 2007 to allow overlap of SEDAR projects. Thus the data workshop for one project may occur before the review workshop of the previous project. The Steering Committee will strive to prevent overlap of personnel between subsequent projects to minimize potential personnel conflicts.

8.7 SEDAR Assessment Projects

8.7.1 SEDAR Benchmark Assessment List

SEDAR	SPECIES	Year
1	SAFMC red porgy	2002
2	SAFMC vermilion snapper & black sea bass	2003
3	SAFMC & GMFMC yellowtail snapper Review ASMFC Atlantic menhaden & croaker	2003
4	SAFMC tilefish & snowy grouper	2004
5	SAFMC & GMFMC king mackerel	2004
6	SAFMC & GMFMC goliath grouper & hogfish	2004
7	GMFMC red snapper	2004
8	CFMC yellowtail snapper & spiny lobster Review FL spiny lobster	2005
9	GMFMC vermilion snapper, greater amberjack, & gray triggerfish	2005
10	SAFMC & GMFMC gag grouper	2006
11	HMS large coastal sharks	2006
12	GMFMC red grouper	2006
13	HMS small coastal sharks	2007
14	CFMC yellowfin grouper, mutton snapper & queen conch	2007
15	SAFMC greater amberjack & red snapper Review SAFMC & GMFMC mutton snapper	2007
16	SAFMC & GMFMC king mackerel	2008
17	SAFMC Spanish mackerel & vermilion snapper	2008
18	Atlantic and Gulf red drum	2009
19	SAFMC & GMFMC Hogfish, SA white grunt	2009
20	ASMFC Menhaden & Croaker Review	2010
21	GMFMC yellowedge grouper & tilefish	2010
22	Shark TBD	2010
23	CFMC TBD through data evaluation workshops 2008	2010
24	SAFMC black sea bass & TBD	2011
25	CFMC TBD	2011
26	GMFMC red snapper	2012
27	SAFMC speckled hind, Warsaw grouper	2012
28	Shark TBD	2012
29	SAFMC & GMFMC Goliath grouper	2013
30	CFMC TBD	2013

8.7.2 SEDAR Assessment Update Schedule

Benchmark #	Species	Scheduled Completion	Status
2	SA black sea bass	April 2005	FINAL
1	SA red porgy	May 2006	FINAL
2	SA vermilion snapper	2007	FINAL
7	Gulf red snapper	Late 2009	Scheduled
3	FL yellowtail snapper	Mid 2009	Scheduled
8	FL spiny lobster	Mid 2010	Scheduled
9	Gulf greater amberjack	Late 2010	Scheduled
4	SA golden tilefish & snowy grouper	Mid 2010	Scheduled
10/12	Gulf gag & red grouper	mid 2011	Scheduled
10	Atlantic gag	late 2011	Scheduled
1	Atlantic red porgy	mid 2012	Scheduled
9	Gulf vermilion, gray triggerfish	late 2012	Scheduled

8.8 Overview of the Center for Independent Experts

The following information providing an overview of the CIE is excerpted from the CIE website (http://www.rsmas.miami.edu/groups/cie/cieprocess.htm)

There has been a tremendous increase recently in the number of peer reviews of NOAA Fisheries science programs and scientific products, as part of the agency's effort to strengthen its mission. NOAA's current Strategic Plan calls for an ever-stronger Science Quality Assurance Program so that the need for external input will be even greater in the near future. However, the existing, informal pool of qualified outside experts is limited and already overburdened. It is unreasonable to expect that the availability of qualified volunteers will increase with the new demands. Presently, the same scientists are often asked to participate in multiple reviews each year, leading to increased time demands and the lack of concrete rewards.

To address this concern and to provide more objective peer review input, NOAA Fisheries formalized the process of independent peer reviews of NOAA Fisheries science with the development of a Center for Independent Experts (CIE), a project commenced in 1998 at the University of Miami's Cooperative Institute of Marine and Atmospheric Studies, a UM-NOAA Joint Institute. The CIE consisted of a pool of qualified scientists who aided first in the design and review of NOAA Fisheries stock assessments, and since then, the CIE has expanded the concept beyond a stock assessment focus, recruiting scientists in the fields of endangered species, marine mammals, and other marine and coastal resources under the purview of NOAA Fisheries.

CENTER FOR INDEPENDENT EXPERTS (CIE) REVIEW PROCESS

The Center for Independent Experts (CIE), operated from the Cooperative Institute for Marine and Atmospheric Science (CIMAS) at the University of Miami, is a program designed to promote independent participation in peer reviews of the science carried out by NOAA Fisheries. The goal of the CIE initiative is to strengthen NOAA Fisheries Quality Assurance efforts under the current NOAA Strategic Plan. Under the program, participating scientists receive remuneration for the time spent in their review activities.

While NOAA Fisheries provides the funding and crafts the terms of reference for the peer reviews, the agency is NOT involved in the selection of reviewers nor can it influence the content of the review reports. All reviewers are selected by the CIE, working **independently** from NOAA Fisheries, and all work conducted by the reviewers is analyzed internally by the CIE prior to its submission to NOAA Fisheries.

The review activities consist of three types:

1. Independent reviews of stock assessments or science products;
2. Independent reviews through active participation in ongoing assessment working groups, stock assessment panels, or other science product groups;
3. Participation as chairs on advisory panels and working groups.

There are two modes of reviews: One, the reviews that are conducted on site, at NOAA Fisheries fishery science centers or other locations, in conjunction with NOAA Fisheries scientists; and two, the reviews that are performed at the participants' primary locations.

NOAA Fisheries establishes the terms of reference and statements of tasks for all reviews, in collaboration with CIE, to ensure that terms and statements meet CIE standards.

These terms and statements are forwarded to the CIE at the University of Miami, and that is where NOAA Fisheries' participation ends in running the peer review process.

The CIE team, comprised of a three-member Steering Committee and a three-member Coordination Team, selects reviewers and oversees the review process. The Coordination Team is a permanent component of the CIE, and it is comprised of a CIE coordinator, manager, and intern. The Steering Committee is comprised of three senior researchers (with no affiliation with NOAA Fisheries) with strong backgrounds in fisheries and other fisheries-related topics, who serve periodic terms.

In some cases, selected participants are chosen from a database of experts developed by the CIE. Depending on the nature of the review, experts may be assigned to focus on different aspects (based on their expertise) or to participate as meeting chairs. In cases where the expertise is not available within the CIE database, other experts are contacted and invited to participate. All efforts are made to recruit the most qualified participants and to ensure that candidates have no conflicts of interest. If the CIE or the candidate identifies a conflict of interest, the expert is rendered ineligible.

To ensure transparency, all background material provided to participants from NOAA Fisheries is also collected and housed at the CIE. The CIE also acts as the moderator for all review-related correspondence between participants and the NOAA Fisheries fishery science center scientists.

Participants are generally required to complete a summary of findings and recommendations in formal, independent review reports. All review reports are to reflect the independent opinion of the expert. That is, no consensus reports among two or more participants are accepted.

In reviews where the CIE provides a chair for a meeting, the duties of the chair may include facilitation of the meeting process and the production of a meeting report that reflects the consensus reached by the meeting participants. This meeting report is not a CIE review report. Instead, the CIE expert is asked to produce a report on the meeting process and is not required to express views about the science discussed during the meeting.

The CIE receives all reports electronically at the completion of the review period. Then, each member of the CIE Steering Committee and Coordination Team comments on the reports, sending all comments to the author of the report. Comments made by the CIE relate to formatting, clarity, and only to whether the report satisfies the terms of reference. Once the experts satisfactorily responded to all CIE comments, the reports are released to NOAA Fisheries.

The CIE project manager from NOAA Fisheries reviews all reports only to verify that the reports conform to the review's terms of reference.

8.9 Workshop Panel and Participant Instructions

8.9.1 Data Workshop

Tasks, Responsibilities, and Supplemental Instructions

for

SEDAR Data Workshop Participants

SEDAR Overview

SouthEast Data, Assessment, and Review (**SEDAR**) is a cooperative Fishery Management Council process initiated in 2002 to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and US Caribbean. SEDAR is managed by the Caribbean, Gulf of Mexico, and South Atlantic Regional Fishery Management Councils in coordination with NOAA Fisheries and the Atlantic and Gulf States Marine Fisheries Commissions. Oversight is provided by a Steering Committee composed of representatives of these partner agencies.

SEDAR is organized around three workshops. First is the Data Workshop, during which fisheries, monitoring, and life history data are reviewed and compiled. Second is the Assessment workshop, during which assessment models are developed and population parameters are estimated using the information provided from the Data Workshop. Third and final is the Review Workshop, during which independent experts review the input data, assessment methods, and assessment products. The charge to each SEDAR Workshop is specified in Terms of Reference that are approved by the appropriate Council. The completed assessment, including the reports of all 3 workshops and all supporting documentation, is then forwarded to the Council SSC for certification as 'appropriate for management' and development of specific management recommendations.

Data workshop participants include NOAA Fisheries stock assessment scientists, researchers, data collectors, and data managers; Commission, State agency, University, and independent researchers, biologists, and fisheries analysts; Council advisory panel (commercial, recreational, and/or NGO) representatives; Council technical panel representatives such as Scientific & Statistical Committee members. Council members and senior agency staff may participate as official observers but do not serve on the actual workshop panel which is responsible for making assessment decisions. Members of the public who attend are noted as observers. The SEDAR coordinator will typically serve as the workshop Chair. As with all SEDAR workshops, stock assessment workshop panelists are appointed from each Councils' SEDAR Advisory Panel.

SEDAR workshops are open, transparent, public processes administered according to the rules and regulations governing Federal Fishery Management Council operations and other applicable Federal laws. All workshops are recorded. The names and affiliations of workshop panel participants and workshop observers will be disclosed. SEDAR workshop reports and submitted working papers are public documents that become part of the official SEDAR Administrative Record and will be posted on the SEDAR website. The public is given

opportunities to comment during SEDAR Workshops and may submit written comments to the associated Councils in accordance with Council guidelines.

Data Workshop Goal

The goal of SEDAR data workshops is to evaluate and compile assessment datasets. Basic data compilations should be completed by the conclusion of the workshop.

Pre-Workshop Preparation

Workshop panel members are encouraged to prepare and summarize data prior to the workshop and present preferred treatments to the group for consideration. Issues and ideas always arise through group discussion and evaluation, so data providers should come prepared with the basic data and analytical tools to enable analyses during the workshop if necessary.

Data Working Groups

SEDAR data workshops are organized around working groups assigned particular data components (e.g., life history, commercial statistics, recreational statistics, and indices). Working groups are responsible for reviewing data and working papers and developing recommendations for consideration by the full workshop panel (Plenary). **All decisions are made by the full group in plenary sessions**.

Working groups are also responsible for drafting data workshop report sections. Each working group has a leader, usually assigned in advance, who guides the group during the workshop and serves as editor of the report section. The group is encouraged to appoint a rapporteur to keep a record of deliberations during group sessions, recommendations during plenary sessions, and assist the leader in drafting report text. All group members are expected to contribute to the group's report. Each appointed participant is assigned to one of the workshop working groups.

Working Papers

Initial analyses, data summaries, and program documentation should be submitted in advance as SEDAR Working Papers. Deadlines for submission will be provided on the schedule for each project. Working papers and all other documentation will be distributed electronically via email and the SEDAR website (http://www.sefsc.noaa.gov/sedar/). Papers should be submitted as word documents or .pdf files. Authors may follow any format of their choosing. Working papers are numbered sequentially by SEDAR cycle and workshop. Please contact the SEDAR Coordinator to obtain document numbers. Working papers shall not contain confidential information.

Data Submission

Panelists are encouraged to submit data in advance. Datasets should be submitted to the SEDAR Coordinator and appropriate data working group leader.

SEDAR Agendas

Establishing strict agendas for SEDAR workshops is not usually practical, as no one can foresee all the issues that will develop or predict the amount of discussion that will be generated for any particular item. Therefore, workshop agendas provide a general listing of meeting times and are constructed around daily milestones and tasks. Evening working sessions are likely. Only the starting and ending time of the workshop are certain, to enable appropriate travel planning; all other events during the workshop may change as necessary to meet the tasks outlined in the Terms of Reference.

Consensus

SEDAR workshops strive to achieve group consensus on many potentially complex and controversial issues, and it is recognized that consensus may not always equate to unanimous consent for each issue. For SEDAR purposes, consensus is taken to mean that all workshop panelists consent to the range and treatment of recommendations included in the report.

Nature of Discussions

Those criticizing the work and recommendations of others are expected to do so constructively and to offer reasonable solutions to go along with any criticisms. Recommendations for sensitivity and exploratory analyses along with ranges for critical parameters should all be considered when evaluating uncertain information.

Materials Distribution

SEDAR workshops are 'paperless' to the extent possible. Materials such as datasets and working papers that are received within submission deadlines will be distributed by SEDAR staff via email and website posting, and hard copies or cds will be mailed upon request. Paper copies of the agenda and Terms of Reference will be provided at the workshop. Working papers that are distributed in advance by SEDAR staff and made available on the website will not be provided in print copy at the workshop, but will be available by cd and posted to the workshop network. Those who submit working papers after the submission deadline are responsible for providing both print and electronic copies for distribution at the workshop. **Please contact the SEDAR Coordinator for the appropriate number of copies.**

Confidentiality

SEDAR is a Council Process and therefore it is an open and public process. All working papers are available to distribution to the general public, all data summaries are available to distribution to the general public, but not all workshop participants have clearance to view confidential data. Therefore, no confidential data should be included in any SEDAR documentation. This includes working papers, reference documents, workshop presentations, and SEDAR assessment reports. Under no circumstances should confidential data be stored on publicly accessible locations of SEDAR workshop networks. **Authors and data submitters are responsible for ensuring that submitted papers and datasets do not contain confidential data.**

Administrative Record and Public Comment

SEDAR is a public Council process. All submitted documents and official correspondence become part of the official administrative record. All SEDAR workshops are announced in the Federal Register. All workshop discussion sessions are recorded. All working papers and final documents will be publicly posted on the SEDAR website. The names and affiliations of all workshop participants and observers will be listed in the workshop reports. The general public is welcome to view all workshop proceedings and will be given the opportunity to comment during plenary sessions as necessary. Written public comments will be accepted in accordance with each Council's Standard Operating Procedures.

Network and IT

A wireless network is available at each SEDAR workshop to provide internet and file server access. IT staff will be available during each workshop to aid each participant in securing network access.

What to Bring

Workshop participants should come prepared to conduct analyses and prepare report text. Ideally they should bring a laptop computer with word processing, analytical and networking capabilities. Participants should bring electronic copies of any documents they want considered during the workshop. Participants should bring accessible copies of relevant datasets to facilitate evaluation and analysis during the workshop.

Meeting Attendance and Sign-in Forms

Sign in forms will be posted in the meeting space during each day of the workshop. All appointed participants are expected to sign in each day that they attend. Failure to sign-in could result in denial of reimbursement requests. SEDAR workshops seldom 'end early' and it is never known when a critical issue may be discussed; therefore, official participants are strongly encouraged to stay for the entire workshop.

Data Workshop Roles and Responsibilities

Chair: (SEDAR Coordinator) Runs the workshop, chairs plenary discussions, schedules work and plenary sessions during the workshop, ensures Terms of Reference are addressed.

Workgroup Leaders: (SEFSC and Council appointees) Lead individual workgroups, coordinate initial data analyses and working papers prior to the workshop, present group recommendations during plenary sessions, serve as lead author and editor for group's data report section.

Workgroup Rapporteur: (SEFSC and Council appointees, chosen for each group by group members) Take notes during group work sessions and plenary, help group leader draft report text and plenary reports and help in addressing report edits following the workshop..

Workshop Data Manager: (Lead assessment agency) Manage submitted data and ensure all data products are tabulated in the SEDAR input worksheet. Oversee data review and finalization

following the workshop. Should expect to contribute data presentations at the Assessment and Review Workshops.

Chief Editor: (SEDAR Staff): Responsible for compiling group document segments into the final workshop report, distributing document to the workshop panel for review, and submitting the final workshop report to the SEDAR coordinator.

SEDAR Workshop Panelist Code of Conduct

- SEDAR workshop panel decisions shall be based on science. Discussions and deliberations shall not consider possible future management actions, agency financial concerns, or social and economic consequences.
- SEDAR workshop decisions are based on consensus. Panels are expected to reach conclusions that all participants can accept, which may include agreeing to acknowledge multiple possibilities.
- Personal attacks will not be tolerated. Advancement in science is based on disagreement and healthy, spirited discourse is encouraged. However, professionalism must be upheld and those who descend into personal attacks will be asked to leave.
- SEDAR workshop panelists are expected to support their discussions with appropriate text and analytical contributions. Each panelist is individually responsible for ensuring that their points and recommendations are addressed in workshop reports; they should not rely on others to address their concerns.
- Panelists are expected to provide constructive suggestions and alternative solutions; criticisms should be followed with recommendations and solutions.

8.9.2 Assessment Workshop

Tasks, Responsibilities, and Supplemental Instructions

for

SEDAR Assessment Workshop Participants

SEDAR Overview

SouthEast Data, Assessment, and Review (**SEDAR**) is a cooperative Fishery Management Council process initiated in 2002 to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and US Caribbean. SEDAR is managed by the Caribbean, Gulf of Mexico, and South Atlantic Regional Fishery Management Councils in coordination with NOAA Fisheries and the Atlantic and Gulf States Marine Fisheries Commissions. Oversight is provided by a Steering Committee composed of representatives of these partner agencies.

SEDAR is organized around three workshops. First is the Data Workshop, during which fisheries, monitoring, and life history data are reviewed and compiled. Second is the Assessment workshop, during which assessment models are developed and population parameters are estimated using the information provided from the Data Workshop. Third and final is the Review Workshop, during which independent experts review the input data, assessment methods, and assessment products. The charge to each SEDAR Workshop is specified in Terms of Reference that are approved by the appropriate Council. The completed assessment, including the reports of all 3 workshops and all supporting documentation, is then forwarded to the Council SSC for certification as 'appropriate for management' and development of specific management recommendations.

Assessment workshop participants include the workshop panel, appointed observers, and other observers. Workshop panels are composed of include NOAA Fisheries stock assessment scientists, Commission/State/university/independent assessment scientists, Council advisory panel (commercial, recreational, and/or NGO) representatives, and Council technical committee representatives, such as members of the Scientific & Statistical Committee. Council or senior agency representatives may participate as official observers, but cannot serve as panel members. Members of the public who attend are noted as observers. The SEDAR coordinator will typically serve as the workshop Chair. As with all SEDAR workshops, stock assessment workshop panelists are to be appointed from each Councils' SEDAR Advisory Panel.

SEDAR workshops are open, transparent, public processes administered according to the rules and regulations governing Federal Fishery Management Council operations and other applicable Federal laws. All workshops are recorded. The names and affiliations of workshop panel participants and workshop observers will be disclosed. SEDAR workshop reports and submitted working papers are public documents that become part of the official SEDAR Administrative Record and will be posted on the SEDAR website. The public is given opportunities to comment during SEDAR Workshops and may submit written comments to the associated Councils, Commissions or other agencies in accordance with Council guidelines.

Assessment Workshop Goal

The goal of SEDAR assessment workshops is to conduct quantitative population analysis to determine stock status, evaluate management benchmarks, and project future stock conditions.

Pre-Workshop Preparation

Panelists should review the findings of the data workshop, including any submitted working papers and reference documents. Those with analytical capabilities may wish to conduct their own model runs.

Working Papers

Initial analyses, data summaries, and program documentation should be submitted in advance as SEDAR Working Papers. Deadlines for submission will be provided on the schedule for each project. Working papers and all other documentation will be distributed electronically via email and the SEDAR website (http://www.sefsc.noaa.gov/sedar/). Papers should be submitted as word documents or .pdf files. Authors may follow any format of their choosing, but are encouraged to review instruction in the SEDAR workshop guidelines pertaining to content and formatting. Working papers are numbered sequentially by SEDAR cycle and workshop. Please contact the SEDAR Coordinator to obtain document numbers. Working papers shall not contain confidential information.

SEDAR Agendas

Establishing strict agendas for SEDAR workshops is not usually practical, as no one can foresee all the issues that will develop or predict the amount of discussion that will be generated for any particular item. Therefore, workshop agendas provide a general listing of meeting times and are constructed around daily milestones and tasks. Evening working sessions are likely. Only the starting and ending time of the workshop are certain, to enable appropriate travel planning; all other events during the workshop may change as necessary to meet the tasks outlined in the Terms of Reference.

Consensus

SEDAR workshops strive to achieve group consensus on many potentially complex and controversial issues, and it is recognized that consensus may not always equate to unanimous consent for each issue. For SEDAR purposes, consensus is taken to mean that all workshop panelists consent to the range and treatment of recommendations included in the report.

Nature of Discussions

Those criticizing the work and recommendations of others are expected to do so constructively and to offer reasonable solutions to go along with any criticisms. Recommendations for sensitivity and exploratory analyses along with ranges for critical parameters should all be considered when evaluating uncertain information.

Materials Distribution

SEDAR workshops are ‘paperless’ to the extent possible. Materials such as datasets and working papers that are received within submission deadlines will be distributed by SEDAR staff via email and website posting, and hard copies or cds will be mailed upon request. Paper copies of the agenda and Terms of Reference will be provided at the workshop. Working papers that are distributed in advance by SEDAR staff and made available on the website will not be provided in

print copy at the workshop, but will be available by cd and posted to the workshop network. Those who submit working papers after the submission deadline are responsible for providing both print and electronic copies for distribution at the workshop. **Please contact the SEDAR Coordinator for the appropriate number of copies.**

Confidentiality

SEDAR is a Council process and therefore it is an open and public process. All working papers are available to distribution to the general public, all data summaries are available to distribution to the general public, but not all workshop participants have clearance to view confidential data. Therefore, no confidential data should be included in any SEDAR documentation. This includes working papers, reference documents, workshop presentations, and SEDAR assessment reports. Under no circumstances should confidential data be stored on publicly accessible locations of SEDAR workshop networks. **Authors and data submitters are responsible for ensuring that submitted papers and datasets do not contain confidential data.**

Administrative Record and Public Comment

SEDAR is a public Council process. All submitted documents and official correspondence become part of the official administrative record. All SEDAR workshops are announced in the Federal Register. All workshop discussion sessions are recorded. All working papers and final documents will be publicly posted on the SEDAR website. The names and affiliations of all workshop participants and observers will be listed in the workshop reports. The general public is welcome to view all workshop proceedings and will be given the opportunity to comment during plenary sessions as necessary. Written public comments will be accepted in accordance with each Council's Standard Operating Procedures.

Meeting Attendance and Sign-in Forms

Sign in forms will be posted in the meeting space during each day of the workshop. All appointed participants are expected to sign in each day that they attend. Failure to sign-in could result in denial of reimbursement requests. SEDAR workshops seldom 'end early' and it is never known when a critical issue may be discussed; therefore, participants are strongly encouraged to stay for the entire workshop.

Network and IT

A wireless network is available at each SEDAR workshop to provide internet and file server access. IT staff will be available during each workshop to aid each participant in securing network access.

What to Bring

Workshop participants should come prepared to conduct analyses and prepare report text. Ideally they should bring a laptop computer with word processing and networking capabilities. Participants should bring electronic copies of any documents they want considered during the workshop. Participants should bring copies of any relevant research documents which are not already provided in the project document list.

Assessment Workshop Roles and Responsibilities

Workshop Chair: (SEDAR Coordinator) Responsible for conducting the workshop, scheduling workshop sessions, and ensuring the Terms of Reference are addressed.

Workshop Rapporteur: (Council Appointee, 1 per stock) Responsible for taking notes during plenary sessions to ensure that discussion items are reflected in the workshop report, assists chair in ensuring Terms of Reference and Council requirements are addressed. May be asked by appointing Council to assist in presenting workshop findings to the SSC and other Council bodies.

Stock Leader (Council Appointee, 1 per stock) Prepares and edits the proceedings section of the assessment workshop report. Responsible for compiling segments drafted by workshop participants and completing and submitting report in accordance with project deadlines. Represents the assessment panel at the Review Workshop and subsequent Council meetings. Rapporteur and Editor roles may be filled by one individual at Council's discretion.

Lead Analyst: (SEFSC/Assessment Agency, 1 per stock) Leader of the assessment team, responsible for preparing population models and making presentations to the assessment panel. Also responsible for presenting the assessment to the Review Panel and the SSC and Council.

Analytical Team: Core group of assessment analysts responsible for conducting model runs, presenting results, and conducting further analyses during the Review Workshop.

Data Presenters: Responsible for presenting overviews of data sources, including the results of any post-DW analyses and compilations. May be filled by the same individuals as other workshop roles, or may be filled by data workshop workgroup leaders.

SEDAR Workshop Panelist Code of Conduct

- SEDAR workshop panel decisions shall be based on science. Discussions and deliberations shall not consider possible future management actions, agency financial concerns, or social and economic consequences.
- SEDAR workshop decisions are based on consensus. Panels are expected to reach conclusions that all participants can accept, which may include agreeing to acknowledge multiple possibilities.
- Personal attacks will not be tolerated. Advancement in science is based on disagreement and healthy, spirited discourse is encouraged. However, professionalism must be upheld and those who descend into personal attacks will be asked to leave.
- SEDAR workshop panelists are expected to support their discussions with appropriate text and analytical contributions. Each panelist is individually responsible for ensuring that their points and recommendations are addressed in workshop reports; they should not rely on others to address their concerns.
- Panelists are expected to provide constructive suggestions and alternative solutions; criticisms should be followed with recommendations and solutions.

8.9.3 Review Workshop

Tasks, Responsibilities, and Supplemental Instructions

for

SEDAR Review Workshop Participants

SEDAR Review Workshop Overview

SEDAR Review Workshops provide independent peer review of stock assessments prepared through SEDAR data and assessment workshops. The goal of the review is to ensure that the assessment and results presented are scientifically sound and that managers are provided adequate advice regarding stock status and management benchmarks. The Review Panel may has limited authority to request additional analyses, corrections of existing analyses and sensitivity runs.

An analytical and presentation team, composed of a subset of the Assessment Workshop panel and representing the primary analysts for each assessment, will be present at the workshop to present assessment findings, provide an overview of assessment data, provide additional results or model information, and prepare any additional analyses requested by the Review Panel. Although many individuals contribute to a SEDAR assessment, the Review Panel is ultimately responsible for ensuring that the best possible assessment is provided through the SEDAR process.

The review panel shall not provide specific management advice. Such advice will be provided by existing Council Committees, such as the Science and Statistical Committee and Advisory Panels, following completion of the assessment.

SEDAR review workshop panels are typically composed of a Chair, 3 reviewers appointed by the CIE (Center for Independent Experts), and 1 reviewer appointed by each Council having jurisdiction over the stocks under review. All reviewers must be independent, in that they should not have contributed to the assessment under review and should not have a role in any management actions that may stem from the assessment. Each Council may appoint several official observers, typically including representatives of the Council, its SSC, and appropriate Advisory Panels.

All SEDAR workshops, including the Review Workshop, are open, transparent, public processes administered according to the rules and regulations governing Federal Fishery Management Council operations. All SEDAR workshops are recorded and transcripts of workshop discussions may be prepared upon request through the SEDAR Steering Committee. The names and affiliations of reviewers will be disclosed in the review workshop documents. The Review Workshop Consensus Summary will be publicly distributed along with the other SEDAR Workshop working papers and workshop reports. The public will be given an opportunity to comment during the Review Workshop and may submit written comments in accordance with Council guidelines.

Review workshop panelists receive the Assessment Report, including sections prepared by the data and assessment workshops; supplemental analytical materials including all working papers and reference documents from prior workshops; and general information regarding the Review Workshop, including the agenda, report outlines, terms of reference, and participant list.

The charge to each SEDAR Review Workshop is specified in Terms of Reference. During the review the Review Workshop panel will prepare a Consensus Summary for each stock assessed addressing each of the Terms of Reference. The consensus summary should represent the views of the group as a whole, and shall include any dissenting views of individual panelists if appropriate. The panel will also finalize an Summary Report for each assessment which summarizes the primary assessment findings. Outlines and example documents will be provided by SEDAR staff.

Review Workshop Panel General Instructions

The Review Panel Chair is responsible for compiling, editing, and submitting the Review Panel Consensus Summary Report to the SEDAR Coordinator by a deadline specified in the assessment schedule. At the start of the workshop the Chair will assign each panelist specific duties, such as drafting specific consensus and summary report sections. The Chair may select one panelist to serve as assessment leader for each stock assessment under review. The assessment leader is responsible for preparing initial drafts of the consensus report and summary report for the assigned assessment. Such duties may be further subdivided if workshop manpower allows. The SEFSC will provide a rapporteur to take notes on the discussions so that panelists can more fully participate in discussions and assist the analytical team in documenting panel recommendations.

The Review Panel's primary responsibility is to ensure that assessment results are based on sound science, appropriate methods, and appropriate data. During the course of review, the panel is allowed limited flexibility to deviate from the assessment provided by the Assessment Workshop. This flexibility may include modifying the assessment configuration and assumptions, requesting a reasonable number of sensitivity runs, requesting additional details and results of the existing assessments, or requesting correction of any errors identified. However, the allowance for flexibility is limited, and the review panel is not authorized to conduct an alternative assessment or to request an alternative assessment from the technical staff present. The SEDAR Steering Committee recognizes that determining when modifications constitute an 'alternative' assessment is a subjective decision, and has therefore determined that the Review Panel is responsible for applying its collective judgment in determining whether proposed changes and corrections to the presented assessment are sufficient to constitute an alternative assessment. The Review Panel Chair will coordinate with the SEDAR Coordinator and technical staff present to determine which requests can be accomplished and prioritize desired analyses.

Any changes in assessment results stemming from modifications or corrections solicited by the review panel will be documented in an addendum to the assessment report. If updated estimates are not available for review by the conclusion of the workshop, the review panel shall agree to a process for reviewing the final results. Any additional or supplemental analyses requested by the Review Panel and completed by the Analytical team shall, at the discretion of the chair and panel, be either documented through a supplemental report or included in the Review Panel Consensus Summary.

If the Review Panel finds an assessment deficient to the extent that technical staff present cannot correct the deficiencies during the course of the workshop, or the Panel deems that desired modifications would result in an alternative assessment, then the Review Panel shall provide in writing the required remedial measures suggest an appropriate approach for correcting the assessment and subsequently reviewing the corrected assessment.

Review Workshop Panel Participant Information

Serving as a review workshop panelists is a considerable time commitment that requires more than simply the daily sessions of the review workshop. Panelists will need to set aside time in the weeks prior to the workshop to review data and assessment documents. During the workshop, time beyond that of the scheduled daily sessions may be required to complete workshop tasks and reports. Time is required following the workshop to review and finalize panel reports.

Review panelists are expected to author workshop reports and may conduct supplementary analyses or data summaries. Panelists should come prepared with a laptop computer for these tasks.

The SEDAR Steering Committee and SEDAR Coordinator establish deadlines for document submission. SEDAR staff distributes working documents and support materials (agenda, participant instructions) to workshop participants, typically two weeks prior to the workshop.

Review Workshop Roles and Responsibilities

Chair (SEFSC appointee): Responsible for conducting workshop sessions; developing a work plan with staff and workshop appointees to address each Term of Reference and panel requests; ensuring recommendations and comments are reflected in panel reports; submitting panel documents by stated deadlines

Reviewer (CIE): Responsible for reviewing workshop documents in advance and contributing to a rigorous peer review of the presented assessment, including drafting required workshop reports, in accordance with the SEDAR Guidelines and CIE contract.

Reviewer (Council): Responsible for reviewing workshop documents in advance and contributing to a rigorous peer review of the presented assessment, including drafting required workshop reports, in accordance with the SEDAR Guidelines. Also responsible for presenting review findings to the SSC and other Council bodies as directed by the appointing Council.

Analytical Team (Assessment Agency): Responsible for presenting assessment results, fulfilling panel requests for additional analyses or model corrections in accordance with SEDAR guidelines.

Data Presenters: (Assessment Agency and Council Representatives) Responsible for presenting data overviews to the panel. Task may be filled by members of the Analytical Team.

Assessment Workshop Representative: (Council Appointee) Responsible for representing the Assessment Workshop Panel's positions at the Review Workshop, including assisting the analytical team in addressing Review Panel questions if necessary.

Rapporteur (SEFSC; 1 per assessment): Responsible for keeping notes on panel discussion of assigned species.

SEDAR Workshop Panelist Code of Conduct

- SEDAR workshop panel decisions shall be based on science. Discussions and deliberations shall not consider possible future management actions, agency financial concerns, or social and economic consequences.
- SEDAR workshop decisions are based on consensus. Panels are expected to reach conclusions that all participants can accept, which may include agreeing to acknowledge multiple possibilities.
- Personal attacks will not be tolerated. Advancement in science is based on disagreement and healthy, spirited discourse is encouraged. However, professionalism must be upheld and those who descend into personal attacks will be asked to leave.

- SEDAR workshop panelists are expected to support their discussions with appropriate text and analytical contributions. Each panelist is individually responsible for ensuring that their points and recommendations are addressed in workshop reports; they should not rely on others to address their concerns.
- Panelists are expected to provide constructive suggestions and alternative solutions; criticisms should be followed with recommendations and solutions.

Review Workshop Networking and IT

A wireless network is available at each SEDAR workshop to provide internet and file server access. All reports and documents pertaining to the review will be available on the server. IT staff will be available during the review workshop to aid each participant in securing network access.

Review Workshop Chair, Reviewer, and Support Staff Responsibilities and Task Statements

Review Workshop Chair:

1. Approximately 3 weeks prior to the Assessment Review Panel workshop the Chair shall be provided with same document package provided to the Technical Reviewers and appointed observers, including stock assessment reports and associated documents. The Chair shall read and review all documents to gain an in-depth understanding of the stock assessment under consideration and the data and information considered in the assessment.
2. Approximately 1 week prior to the workshop the Chair may be asked to participate in a conference call with the SEDAR Coordinator and representatives of the stock assessment teams to review the final agenda, plan for presentations, and meeting format.
3. During the Assessment Review Workshop the Chair shall control and guide the meeting, including the coordination of presentations, discussions, and task assignments.
4. During the Assessment Review Workshop the Chair may participate in technical discussions and serve as a technical reviewer.
5. During the Assessment Review Workshop the Chair shall work with the SEDAR Coordinator and the analytical and presentation team to manage the workload of panel requests and recommendations. At the conclusion of each session the Chair shall provide prioritized task lists to the analytical team and SEDAR Coordinator.
6. The Chair shall facilitate preparation and writing of the Consensus Report. Review panel members, agency staff, and others present at the meeting will assist the Chair as needed. The Chair shall be responsible for the editorial content of Panel reports, and the Chair shall be responsible for ensuring that reports are produced and distributed to appropriate contacts on schedule (see “Final Reports” below).
7. The SEDAR coordinator shall assist the Assessment Review Panel Chair prior to, during, and after the meeting to ensure that documents are distributed in a timely fashion.
8. Expected Time Obligation: It is estimated that the Chair’s duties shall occupy up to 14 days: several days prior to the Review Panel meeting for document review, five days for the workshop, and several days following the meeting to ensure that the final documents are completed.

Review Workshop Technical Reviewer:

1. Approximately three weeks prior to the meeting, the reviewers shall be provided with the stock assessment reports, associated supporting documents, and review workshop instructions including the Terms of Reference. Reviewers shall read these documents to gain an in-depth understanding of the stock assessment, the resources and information considered in the assessment, and their responsibilities as reviewers.
2. During the Review Panel meeting, reviewers shall participate in panel discussions on assessment methods, data, validity, results, recommendations, and conclusions as guided by the Terms of Reference. The reviewers shall develop a Peer Review Consensus Summary report for each assessment reviewed. Reviewers may be asked to serve as an assessment leader during the review to facilitate preparing first drafts of review reports.
3. Following the Review Panel meeting, reviewers shall work with the chair to complete and review the Peer Review Consensus Summary Reports. Reports shall be completed, reviewed by all panelists, and comments submitted to the Chair within two weeks of the conclusion of the workshop.
4. Additional obligation of CIE-appointed reviewers: Following the Review Panel meeting, each reviewer appointed by the CIE shall prepare an individual CIE Reviewer Report and submit it in accordance with specifications provided in the Statement of Work.
5. Additional obligation of Council-appointed reviewers: Present assessment findings to the SSC and other Council bodies as directed.

Review Workshop Support Staff:

SEDAR Coordinator: Arrange workshop and handle meeting logistics; distribute workshop materials and notices; support chair and reviewers during review workshop; coordinate with chair and analytical team to prioritize panel task requests; address procedural issues that arise; distribute final workshop products in accordance with SEDAR protocols.

Analytical and Presentation Team: Present data overview and assessment results, address panel questions and comments as required; complete panel requests for additional analyses or model corrections in accordance with SEDAR guidelines; document any analyses conducted during the workshop.

Rapporteur: Take notes on panel discussion of assigned species for use by technical reviewers in preparing initial report drafts, assist SEDAR Coordinator, Chair, and Analytical team in addressing panel requests and completing workshop documents as necessary.

IT Support: Set-up and manage the SEDAR network to provide internet and file server capabilities during the workshop, work with hotel or vendor contacts to provide internet and email access, ensure all participants are able to access the network, and address any IT-related issues that arise during the workshop

SEDAR Administrative Assistant : Provide general support to workshop participants, coordinate with hotel banquet and events staff to facilitate proper room arrangements and daily catering orders, record workshop sessions, manage submitted documents and written statements for administrative record.

SEDAR Review Panel Consensus Summary Outline

I. Terms of Reference

List each Term of Reference, and include a summary of the Panel discussion regarding the particular item. Include a clear statement indicating whether or not the criteria in the Term of Reference are satisfied.

II. Further Analyses and Evaluations

Summary and findings of review panel analytical requests not previously addressed in TOR discussion above.

III. Additional Comments

Provide a summary of any additional discussions not captured in the Terms of Reference statements.

IV. Recommendations for Future Workshops

Panelists are encouraged to provide general suggestions to improve the SEDAR process.

V. Reviewer Statements

Each individual reviewer should provide a statement attesting whether or not the contents of the Consensus Report provide an accurate and complete summary of their views on the issues covered in the review. Reviewers may also make any additional individual comments or suggestions desired.