

SEDAR Procedures Workshop 8

Stock ID & Meristics

DRAFT: 8/29/2016

Workshop Goal

To develop biological stock structure recommendations and meristic conversion equations for species that have been or will be assessed through the SEDAR process to help streamline such decisions for future assessments.

Workshop Description and Need

SEDAR procedural workshops provide an opportunity for focused discussion and deliberation on topics that arise in multiple assessments and are structured to develop best practices for addressing common issues across assessments. The eighth procedural workshop will provide recommendations for stock boundaries and meristic equations for species assessed through the SEDAR process.

At the 2015 SEDAR Data Best Practice workshop, panelists developed best practices for a number of technical and process issues, including development of a process timeline for the data portion of SEDAR Benchmark assessments. Two data decisions were identified by panelists as critical to being made early within the SEDAR process: 1) the stock boundary decision and 2) the development of meristic conversion equations. The stock boundary decision provides the basis for how all data are identified and allocated to a particular spatial area within a specific stock. Stock boundaries affect how all of the data are compiled and analyzed for all SEDAR Data Workshop (DW) Working Groups. Meristic conversions are needed early in the process as various DW Working Groups need this information to begin analyses in preparation for the DW. If these two critical decisions are made late in the process, they can potentially cause substantial delays in data compilation.

To address these issues, the SEDAR Data Best Practice panelists recommended convening a Stock Identification and Meristics Workshop that would review current stock boundaries and meristic equations used for species under Fishery Management Plans (FMP) and provide recommendations for both stock boundaries and meristic equations by species. The species specific stock boundary and meristic conversions recommended from this workshop would then be reviewed via a 'Stock Boundaries/Meristic Review' webinar for each SEDAR benchmark project by Data Workshop panelists in advance of the Data Workshop per the Data Process Timeline.

Workshop Terms of Reference

- 1) Review and/or develop stock structure and unit stock definitions and consider whether changes are required.
 - a. Review genetic studies, growth patterns, existing stock definitions, otolith chemistry, oceanographic and habitat characteristics, prior SEDAR stock ID recommendations and any other relevant information on stock structure.
 - b. Make recommendations on biological stock structure and define the unit stock or stocks to be addressed by species and document the rationale behind the recommendations.
 - c. Provide recommendations for future research on stock structure by species.
 - d. Identify and discuss when biological stock structure recommendations, assessment stock unit recommendations, and existing management units (state and federal) do not align.
- 2) Review and/or develop meristic conversion equations and consider whether changes are required.
 - a. Review and/or develop existing meristic conversions equations and develop new conversion equations by species, as necessary.
 - b. Make recommendations on best model usage, methods for model comparisons, model diagnostics, and timing for when conversion equations should be calculated or updated.
- 3) Prepare a SEDAR Procedural Workshop report addressing workshop recommendations and decisions that will be used to guide future SEDAR assessments.

Time and Place

Organizing Committee has recommended the workshop occur late 2017 (exact dates TBD) in Atlanta, GA.

Planning and Organization

An organizing committee will be convened to develop Terms of Reference, identify the species to be addressed during this workshop, identify potential participants, identify briefing materials and necessary advance prep work, and discuss workshop approach and timing. The role of procedure workshop organizing committees is administrative and planning.

Organizing Committee:

- Beverly Barnett

- Kevin Craig
- Jeff Isely
- Jennifer Potts
- Tracey Smart
- SERO Representative – Jessica Stephen
- SEDAR Staff – Julia Byrd, John Carmichael, Julie Neer

Advance Prep Work

Species Selection

The Organizing Committee will identify species to be addressed in this procedural workshop. The OC recommended excluding sharks and Caribbean species from the initial Stock ID & Meristics Workshop and noted these species may be better handled in separate workshops since they may likely include different participants and/or datasets.

For the remaining stocks, SEDAR staff reviewed past SEDAR Stock Assessment Reports and provided documents to the Organizing Committee that summarized the current biological/assessment stock units, current management units, data types used to inform stock structure, etc. SEDAR staff provided draft rankings (see ranking descriptions below) to serve as a starting point for the OC's discussions. The OC reviewed the summary documents and discussed species prioritization for the 2017 workshop. Criteria used to prioritize species included: schedule/timing of next assessment – with benchmark assessments receiving highest priority; recommendations/findings on Stock ID from previous SEDAR SAR's (e.g. were there studies with conflicting results, did the stock ID issues appear to be settled with data available, etc.); and workload (e.g. how many species could realistically be handled at a workshop).

The OC recommends including the following species in the 2017 Stock ID & Meristics workshop: cobia, scamp, gag, white grunt, yellowmouth grouper, and gray triggerfish. See Table 1 (below) for full species prioritization.

The rankings were as follows:

- 0 = Stock ID well addressed through the current assessment process; review of Stock ID will occur during the individual SEDAR project per Data Process Timeline
- 1 = Priority species for the 2017 Stock ID & Meristics Workshop
- 2 = Priority species for the next Stock ID & Meristics Workshop (~2020)*
- 3 = Stock ID needs to be addressed at future workshop, but lower priority than species ranked # 1 or #2

* SEDAR staff recommend shark specific Stock ID & Meristics workshop in 2018-2019 timeframe.

Table 1. Priority ranking for SEDAR Stock ID & Meristic workshops. Organizing Committee is recommending the species in bold for inclusion in the 2017 workshop. Brief justification describes rationale for rankings.

Species	Priority Ranking	Justification
Cobia	1	SEDAR Steering Committee priority; South Atlantic benchmark on schedule for 2018; potentially complex Stock ID issues (includes inshore/offshore component), new studies since last assessment
Scamp	1	SEDAR Steering Committee priority; South Atlantic & Gulf of Mexico benchmark on schedule for 2018; first time assessment
Yellowmouth Grouper	1	SEDAR 49 (GoM Data Limited) yellowmouth grouper assessment halted due to species ID issues between yellowmouth grouper and scamp, recommend assessing scamp and yellowmouth grouper at same time to further discuss species ID issues; South Atlantic & Gulf of Mexico scamp benchmark on schedule for 2018
White Grunt	1	SAFMC requested white grunt benchmark assessment in 2020; first time assessment; may be complex stock structure - genetics and growth differences seen between Carolinas and South Florida
Gag	1	In past assessments, previous guidance from Councils to use mgmt. boundaries; documentation from past assessments note conflicting data in regards to Stock ID
Gray Triggerfish	1	GMFMC request benchmark in 2018; SAFMC request benchmark in 2020; little documentation on stock ID in some past SAR's; some documentation suggests biological stock may not match existing mgmt. or assessment unit stocks
Greater Amberjack	2	Some documentation suggests biological stock may not match existing mgmt. or assessment unit stocks; GMFMC request update assessment in 2020 (update on-going in 2016); SAFMC request standard assessment in 2018
Red Grouper	2	Some documentation suggests biological stock may not match existing mgmt. or assessment unit stocks; SAFMC request update assessment in 2020 (standard on-going in 2016); GMFMC request update assessment in 2019
Vermilion	2	Some documentation suggests biological stock may not

Snapper		match existing mgmt. or assessment unit stocks; SAFMC update assessment scheduled for 2018; GMFMC request update in 2018
Yellowedge Grouper	2	Not assessed in South Atlantic; GMFMC request update assessment in 2019; limited information but documentation noted genetics study underway during S22 assessment
Speckled Hind	2	Not assessed in South Atlantic; GMFMC – assessment on-going as part of S49 data limited; stock ID info may be available in ESA listing documentation?; GMFMC request update assessment in 2020
Warsaw Grouper	2	Has not been assessed through SEDAR; stock ID needs to be evaluated
Dolphin	2	Has not been assessed through SEDAR; seems to be growing interest in some Councils for assessing this species; stock ID needs to be evaluated; GMFMF – in fishery but not included in mgmt. unit
Wahoo	2	Has not been assessed through SEDAR; seems to be growing interest in some Councils for assessing this species; stock ID needs to be evaluated; GMFMC does not manage
Black Seabass	3	Seems to be fairly well addressed in past assessments; some further discussion could be needed for mixing area?
Golden Tilefish	3	Further investigation between SA and GoM may be needed based on documentation in previous SAR's
Red Porgy	3	Stock ID needs to be evaluated; little documentation in previous SEDAR's; GMFMC does not manage
Red Snapper	3	Some studies fail to identify stock structure between SA and GoM; controversial species – need to have thorough study before review?
Snowy Grouper	3	Stock ID needs to be evaluated; little documentation and/or limited data noted in previous SEDAR's
Almaco Jack	3	Has not been assessed in SA; GoM data limited assessment on-going – noted limited information available; Stock ID needs to be evaluated
Lane Snapper	3	Has not been assessed in SA; GoM data limited assessment on-going – noted limited information available; Stock ID needs to be evaluated
Lesser Amberjack	3	Has not been assessed in SA; GoM data limited assessment on-going – noted limited information available; Stock ID needs to be evaluated
Wenchman	3	GoM data limited assessment on-going – noted limited information available; Stock ID needs to be evaluated; SAFMC does not manage
Knobbed Porgy	3	Stock ID needs to be evaluated; has not been assessed through SEDAR; there may be limited information; GMFMC does not manage

Black Grouper	0	Well addressed through previous assessments
Blueline Tilefish	0	Will be addressed through SEDAR 50
Goliath Grouper	0	Well addressed through previous assessments
Gray Snapper	0	Will be addressed through SEDAR 51
Hogfish	0	Well addressed through previous assessments
King Mackerel	0	Well addressed through previous assessments
Mutton Snapper	0	Well addressed through previous assessments
Spanish Mackerel	0	Well addressed through previous assessments
Yellowtail Snapper	0	Well addressed through previous assessments
Red Drum	0	Well addressed through previous assessments; ASMFC/State manage in the Atlantic
Wreckfish	0	Not identified as priority
Spiny Lobster	0	Not identified as priority; current assessments not accepted by SSC's; SSC's recommend Caribbean wide assessment and use landings data for mgmt. parameters

Briefing Materials

TBD

Workshop Approach

TBD

Participants

TBD. Potential participants will likely include members from Council SSCs, Commission Technical Committees, SEFSC, ACCSP, State Agencies, and SEDAR staff. It would also be helpful to have independent experts with stock identification expertise attend the workshop. Participants will be appointed by the Cooperator with which they are affiliated.