

Stock Assessment Prioritization in the U.S. South Atlantic

Erik H. Williams SEFSC, Beaufort Laboratory

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Prioritization History

- 2011: Initiate development to respond to budget inquiries
- 2013: Prioritization need discussed in proposed Magnuson-Stevens Act reauthorization
- Feb 2014: Draft process presented to Council Coordination Committee (CCC) and available for public comment
- June 2014: Public comments summarized for CCC
- Sept 2014: Government Accountability Office report endorses draft plan
- June 2015: Process revised based on comments and presented to CCC
- August 2015: Prioritization document released



Prioritizing Fish Stock Assessments

NOAA Technical Memorandum NMFS-F/SP0-152
Edited by Richard D. Methot, Jr.
August 2015

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service





Prioritization Steps in Each Region

- Organize stocks for prioritization by shared data resources, constituencies, and assessment resources
- Work with Council advisors and SSC to develop scores for each of the 12 prioritization factors (e.g. ecosystem importance, recreational importance)
- 3. Identify targets
 - a. Target frequency based on stock biology & importance; regionally scaled
 - b. Update process with target level once SAIP update is finalized
- 4. Work with Council to assign factor weights provide prototype weights for initial implementation
- 5. Calculate and rank weighted scores
- Use final ranks as objective <u>guidance</u> in selecting assessments for upcoming cycle



Regional Assessment Prioritization

List and group stocks for prioritization

Collect data from available databases or regional expert opinion in 5 themes:

- Fishery Importance
 - Stock Status
- Ecosystem Importance
- · Assessment Information
- Stock Biology (target frequency only)

Target Assessment Level

What is the right level of data inputs and complexity for a stock's assessment?

Concept will be fully developed and implemented with updated SAIP

Target Assessment Frequency

What is the ideal interval between assessment updates to meet management needs?

Developed through initial regional expert workshops, then reviewed as needed

Determine Annual Priorities

How can we best meet established targets, given available resources?

Annual workshops to review data/scoring weights and develop priorities for next year



Roles in Regional Prioritization

Collates data from databases and past assessments **NMFS NMFS** Councils Provide scores for each stock for the other factors Commissions Other Partners Regional Assessment Assigns weights within ranges to each factor **Steering Committees** Factor Scores x Factor Weights = Proposed Priority List (e.g. SEDAR) Regional Steering Uses the proposed list, upcoming management cycle, data availability, Committee and assessment capacity to determine set of assessments to do



PFMC Preliminary Scoring Approaches

Category	Factor	Description	
FISHERY	Commercial Fishery Importance	Non-linear ranking based on landed value of catch from regional catch databases; scale against most valuable regional stock	
	Recreational Fishery Importance	Use recreational landings data (more comprehensive information is not available) – work towards better data for future iterations; working to develop an acceptable price multiplier; Council advisors/SSC to review	
	Importance to Subsistence	Use Habitat Assessment Prioritization tribal input as starting point and solicit additional input from West Coast tribes; Council advisors/SSC to review	
	Non-Catch Value	Potential sources of information: The Natural Capitol Project; social value category from Habitat Assessment Prioritization; also points for nearshore species based on viewing; Council advisors/SSC to review	
	Constituent Demand	Compare sector/state data to coastwide landings – opportunity to identify stocks important to individual fisheries but lower overall value; also identify choke stocks; Council advisors/SSC to review	
	Rebuilding Status	Binary score based on data available within SIS	

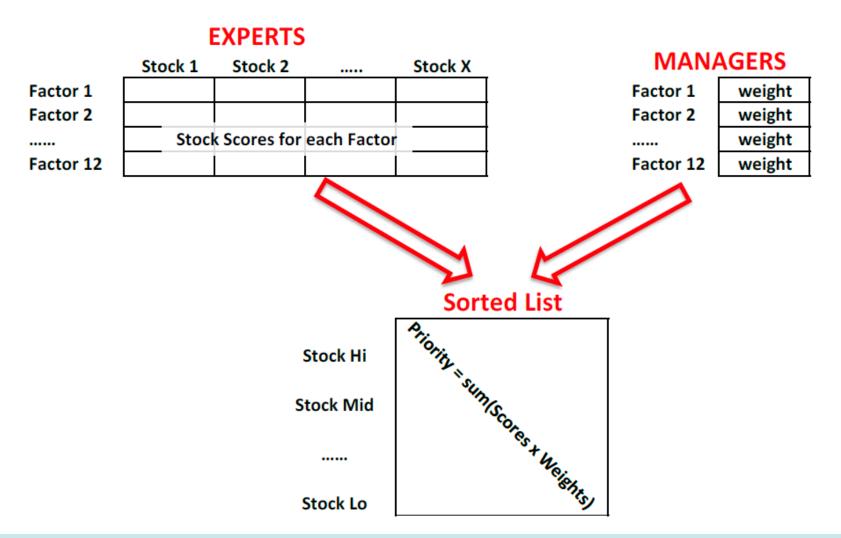


PFMC Preliminary Scoring Approaches

Category	Factor	Description	
STOCK	Relative Stock Abundance	Based on data from most recent assessments; SSC recommends that point scale be revised to account for precautionary zone; scores for unassessed stocks based on PSA	
	Relative Fishing Mortality		
ECO	Key Role in Ecosystem	Use information from Ecosystem Sciences program (if available); Ecosystem scores from Habitat Assessment Prioritization also available as resource; SSC to review	
	Unexpected Changes in Indicators	Investigate utility of swept-area biomass estimates (available for ~half of species to be scored)	
ASMT	New Information Available	Work with SSC to compare new data against cited Research & Data Needs	
AJIVII	Years Assessment Overdue	Use mean age of species with similar life histories to calculate target frequency for unassessed and Data-Moderate assessments; adjust up or down to fit biennial assessment cycle	



Scoring



Scoring

	FACTOR	Source	Raw Scores
FISHERY	Commercial Fishery Importance from landed value	SIS_ACL	0-5
	Recreational Fishery Importance from regional input	experts	0 - 5
	On rebuilding plan	SIS	0-1
	Importance to Subsistence	experts	0-5
	Constituent Demand/choke stock	experts	0 - 5
	Non-Catch Value	experts	0 - 5
STOCK	Relative Stock Abundance	SIS	1-5
	Relative Fishing Mortality	SIS	1-5
ECO	Key role in food web	experts	1-5
ASMT	Unexpected Changes in Stock Indicators	experts	0-5
	Relevant New Data Type or Other Information Becomes Available Assessment Years Overdue Relative to Target Frequency	experts SIS	0 - 5 0, 1 - 10



Next Steps for Each Region

- 1. Define stock list
- 2. Scale target frequency
- 3. Develop <u>importance scores</u> for:
 - Recreational
 - Subsistence
 - Constituent demand
 - Non-catch value
 - Ecosystem
 - Unexpected changes
 - New information
- 4. Work with managers to assign <u>factor weights</u>
- Envisioned as needing several workshops/dialogues, with Center and other regional scientists, potentially the Plan Teams
- Bigger effort in first year; lesser annual maintenance



Take a Tour of the Spreadsheet



Questions?

