Implementing an Assessment Prioritization Process

Briefing for
Council Coordinating Committee
Key West, FL
June 25, 2015

Overview

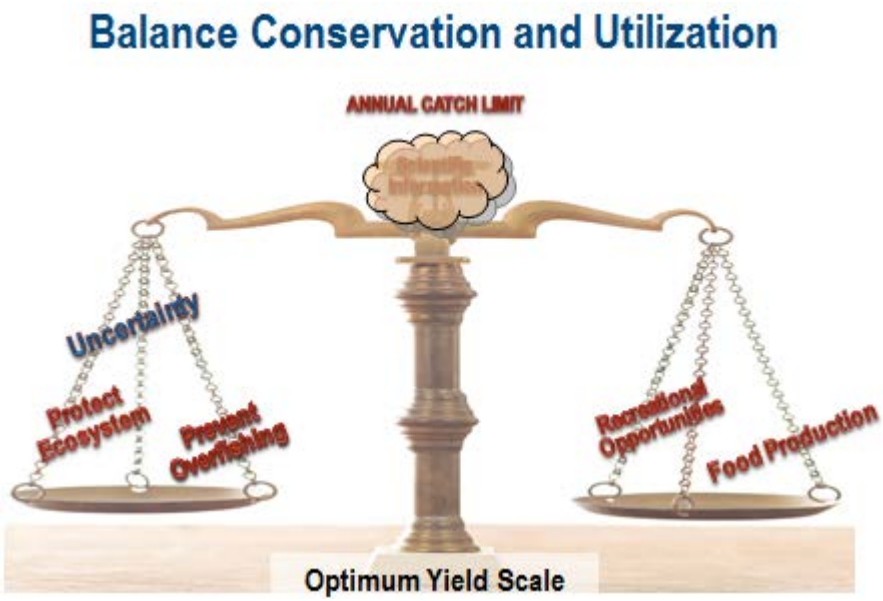
- Recap History
- Goal for Prioritization
- Changes from 2014 version
- Prioritization Process Overview
- Role for Regional Partners

Recent History and Plans

- June 2014 – public comment summarized for CCC
- Fall 2014 and Spring 2015 – test scoring by NWFSC and NEFSC scientists
- April 2015 – Develop revised approach
- May-June 2015 – Present to NRCC, CCC
- Summer 2015 – Release of document
- Late Summer 2015 – Begin regional workshops

Assessments Support Management

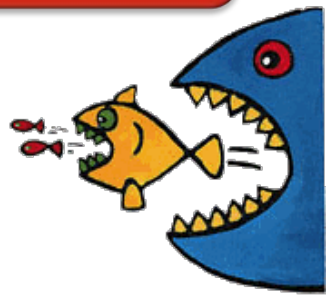
- How good (complete, data-rich) does a stock's assessment need to be to provide good enough management advice?
- How frequently should it be updated?



Which Stocks Need Assessments?

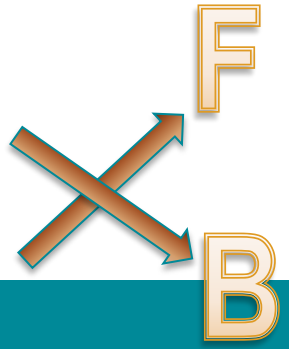
Important to Fisheries

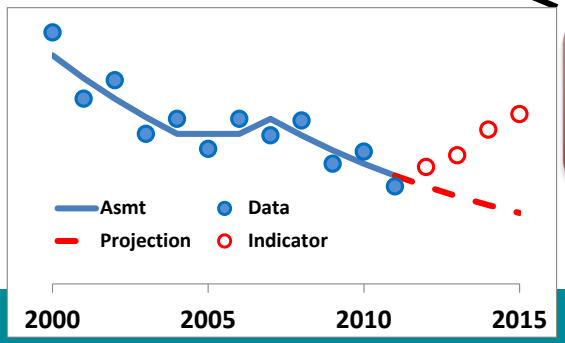
Important to Ecosystem



Assess It!

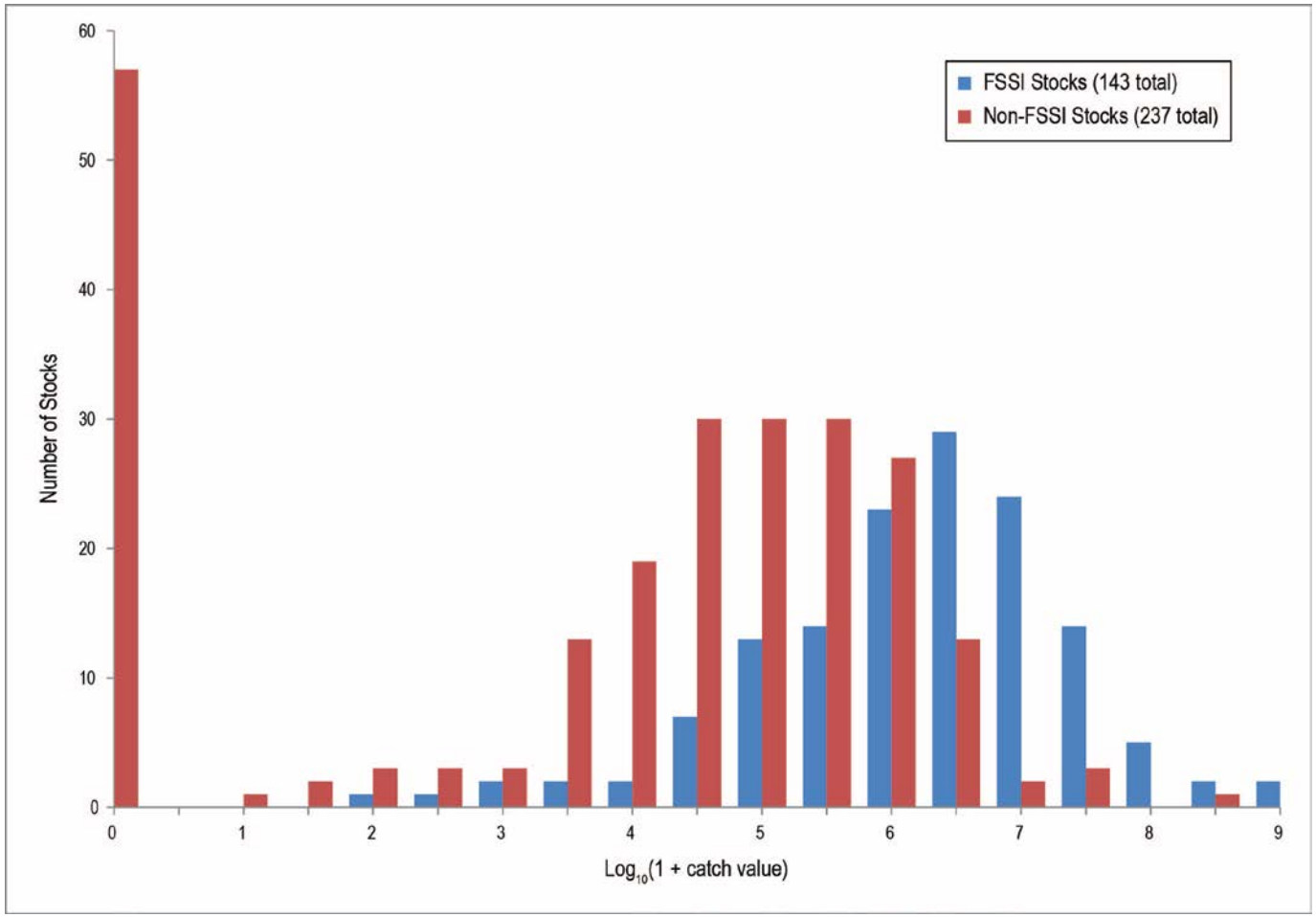
At Risk



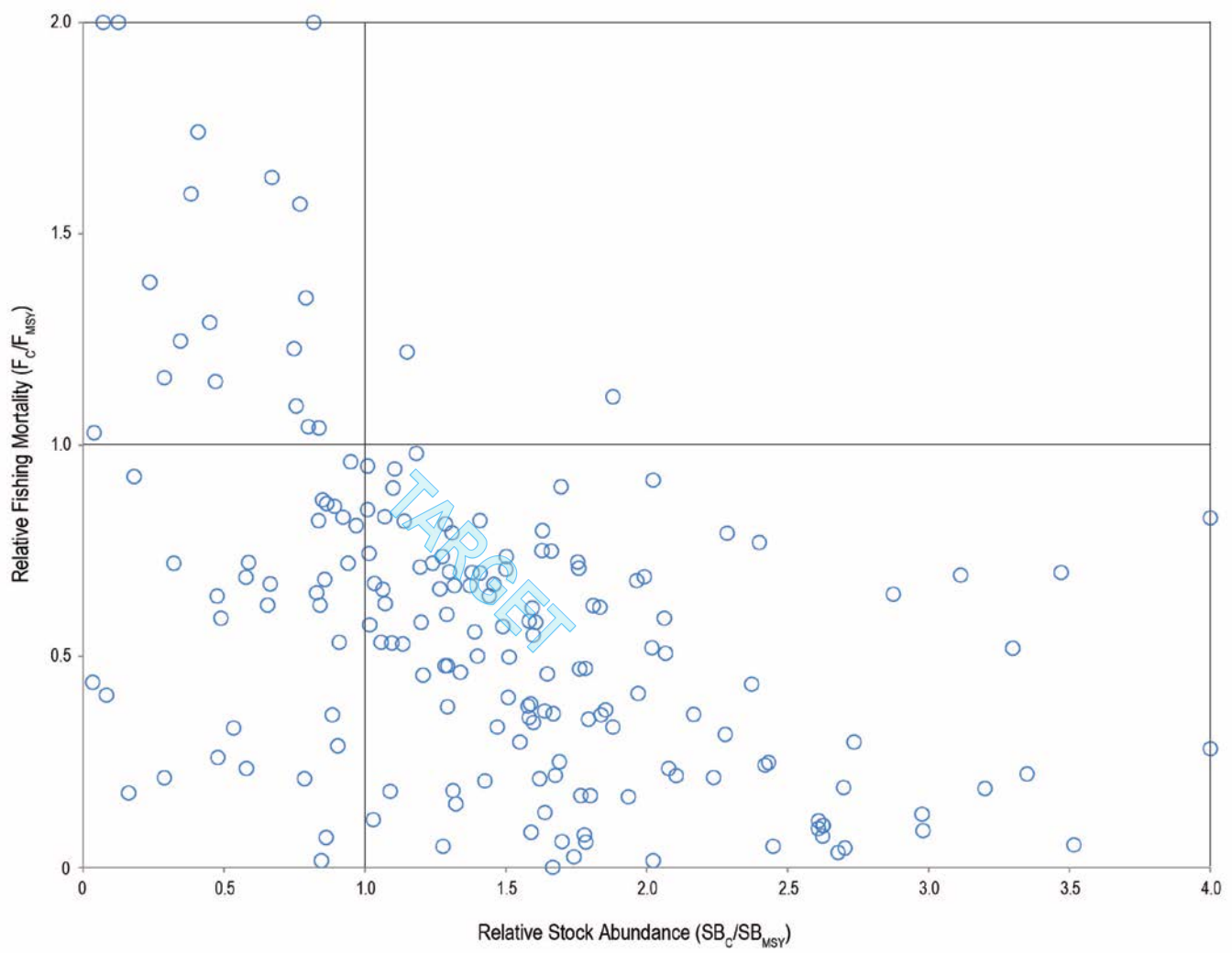


New Information

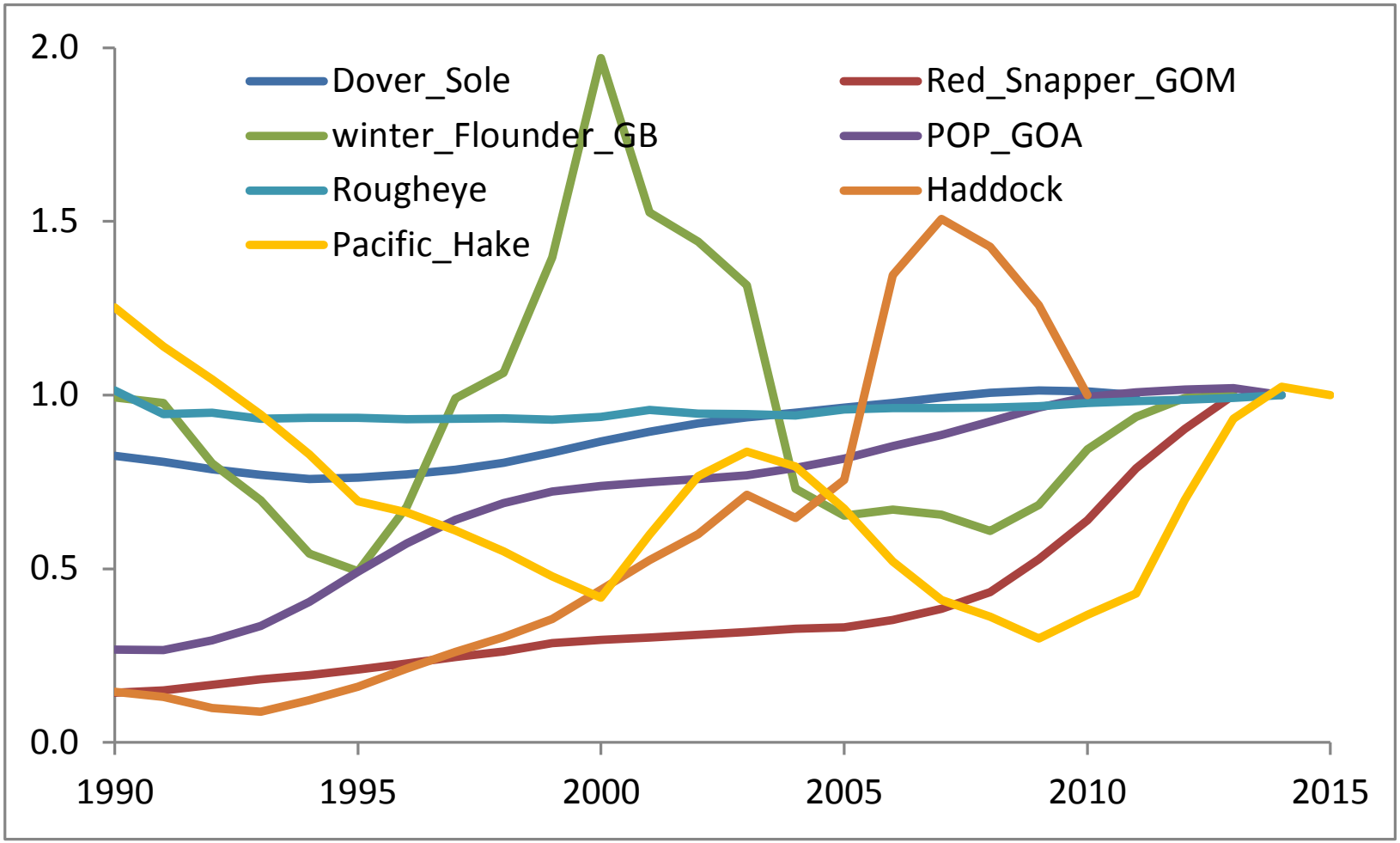
How Many Important Stocks Are There?



How Many Stocks are At-Risk?



How Fast do Stocks Change?



Why Prioritize?

- Some stocks need very good and timely assessments, but no assessment will ever provide perfect information, real-time
- All managed stocks need some level of assessment, but costs could exceed benefits for some low-valued stocks
- The goal is a prioritized portfolio of right-sized assessments for each stock
- Achieved through facilitation and standardization of each regional prioritization process
- Nationally, gaps in capability will be more apparent and can be considered for future investments

Major Changes since 2014

- Stocks to be included
  - Be inclusive and make the list as the first regional step
- Approach to factor weighting
  - Allow for regionally determined weights;
  - Now closer to a formal Multi-Criteria Decision Analysis
- Recreational fishery valuation
  - Obtain relative value through regional expert workshops
- Data-limited
  - No separate track for first time assessments

Assessment Prioritization Process

Based on data from available databases or regional expert opinion in 5 categories:

- Fishery Importance (6 sub-cat.)
- Stock Status (2)
- Ecosystem Importance (1)
- Stock Biology (2)
- Assessment History (3)

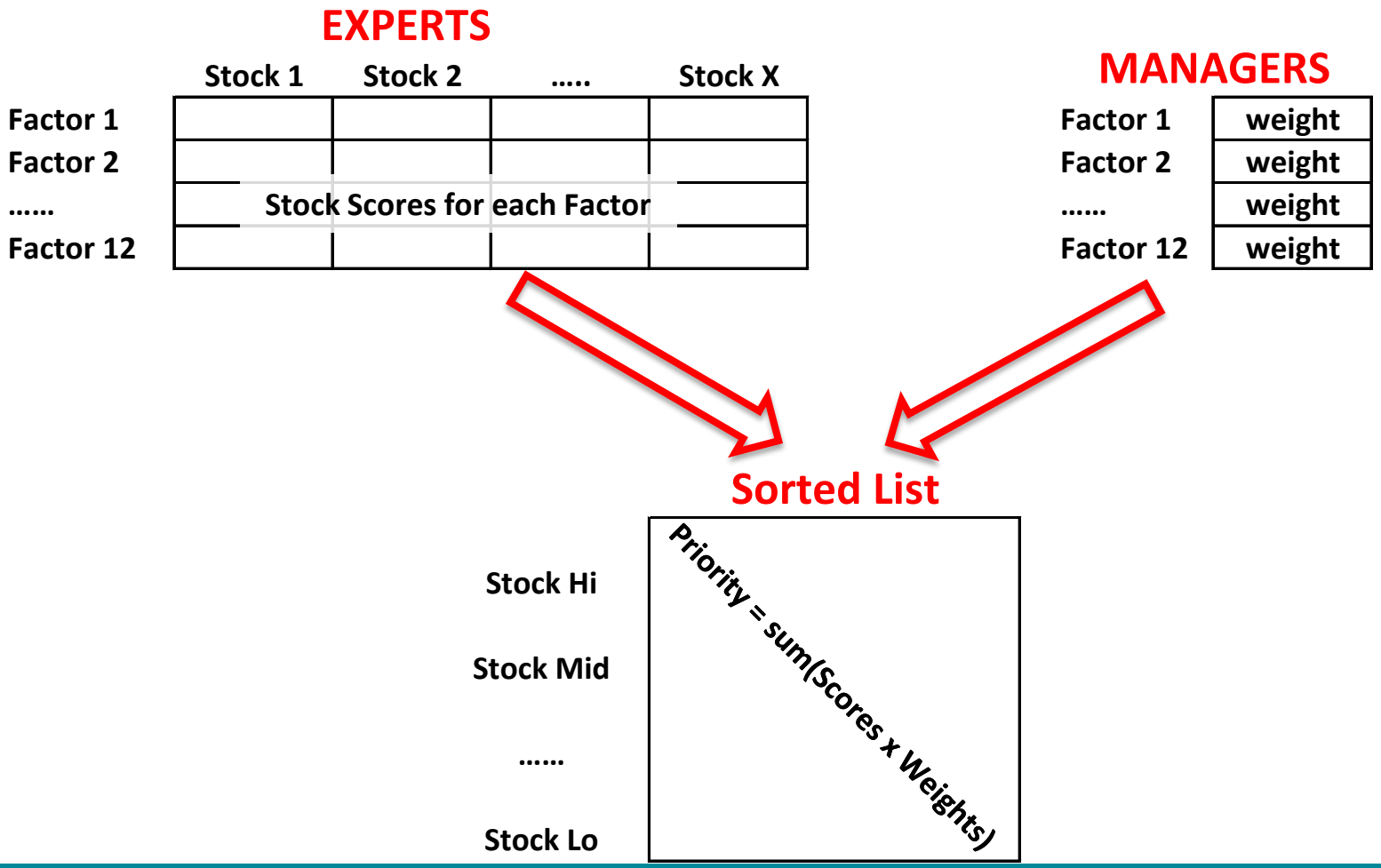
Activities Completed at Regional Level

Target Assessment Level	Target Assessment Frequency	Determine Annual Priorities
What is the right level of data inputs and complexity for a stock's assessment?	What is the ideal interval between updates for a stock's assessment to meet management needs?	How can we best meet established targets, given available resources?
Concept will be fully developed and implemented with updated SAIP	Developed through initial regional expert workshops, then reviewed and revised as necessary	Annual workshop to update stock scores, develop priorities for coming years

12 Factors In Prioritization

	FACTOR	Source	Raw Scores
FISHERY	Commercial Fishery Importance from landed value	SIS_ACL	log10(comm_value)
	Recreational Fishery Importance from regional input	experts	0 - 5
	On rebuilding plan	SIS	0 - 1
	Importance to Subsistence	experts	0 - 2
	Constituent Demand/choke stock	experts	0 - 5
	Non-Catch Value	experts	0 - 2
STOCK	Relative Stock Abundance	SIS	1 - 4
	Relative Fishing Mortality	SIS	1 - 4
ECO	Key role in food web	experts	1 - 3
ASMT	Unexpected Changes in Stock Indicators	experts	0 - 5
	Relevant New Data Type or Other Information Becomes Available	experts	0 - 5
	Assessment Years Overdue Relative to Target Frequency	SIS	0, 1 - 10

How Will It Work?



Roles in Prioritization Process

- NMFS collates available data from databases and past assessments
- NMFS with Councils, Commissions, other partners provide scores for each stock for the other factors
- Regional Assessment Steering Committees (e.g. SEDAR, NRCC) adjust weights within ranges to each factor
- Factor Scores x Factor Weights = Proposed Priority List
- Regional Steering Committee uses the proposed list, upcoming management cycle, data availability, and assessment capacity to determine set of assessments to do

Needed Steps in Each Region

1. **Define stock list for each prioritization group (i.e. FMP with qualifiers)**
2. **Develop ecosystem importance scores; piggyback on climate vulnerability?**
3. **Develop recreational importance scores**
4. **Develop scores for the additional fishery factors**
5. **Obtain access to stock indicator data**
6. **Work with regional managers to assign factor weights**

- **Envisioned as needing several workshops, at least dialogues, with Center and other regional scientists, potentially the Plan Teams**
- **Bigger effort in first year; lesser annual maintenance**

Future Directions

- Management Strategy Evaluations for a few example stocks can better inform setting of target assessment level and frequency;
- Gaps between current and target assessment levels, and the number of overdue assessments informs future investments in capacity;
- The simple “factor score x weight” approach evolves to calculate a portfolio of assessments that achieve the greatest benefits