



# 2015 Annual Review of Stock Rebuilding Performance

ASMFC

August 2015



# Background

- 2014-2018 Strategic Planning
- Commissioners Requested more frequent reviews
- Initiated in 2009
- Task in the 2015 Action Plan



# Objective

- Validate Status/Rate of Progress
- If not acceptable: Identify corrective action



# Outcome

- Direction/feedback to species management boards
- Input into the 2016 action planning process



# Categories

- Rebuilt/Sustainable
- Recovering/Rebuilding
- Concern
- Depleted
- Unknown



# Rebuilt/Sustainable and Recovering/Rebuilding Stocks

## Rebuilt/Sustainable

- GOM/GBK Lobster
- Atlantic Herring
- Menhaden
- Black Drum
- Bluefish
- Scup
- Spanish Mackerel
- Spiny Dogfish

## Recovering/Rebuilding

- Red Drum



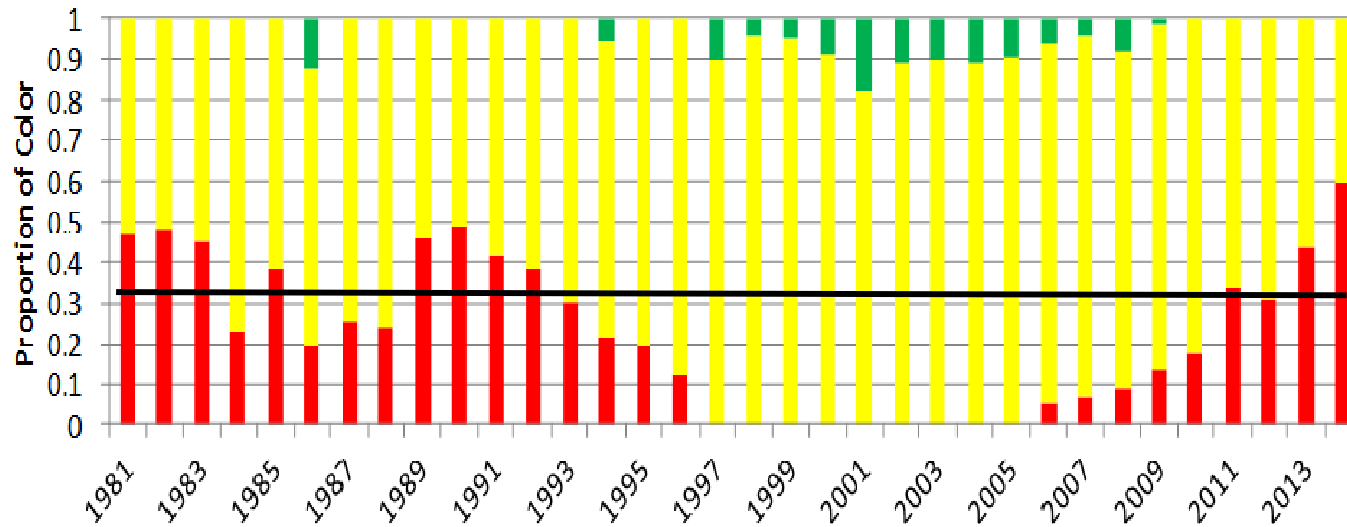
# Concern

- Atlantic Croaker
- Atlantic Striped Bass
- Black Sea Bass
- Coastal Sharks
- Horseshoe Crab
- Tautog
- Summer Flounder
- Winter Flounder (GOM)

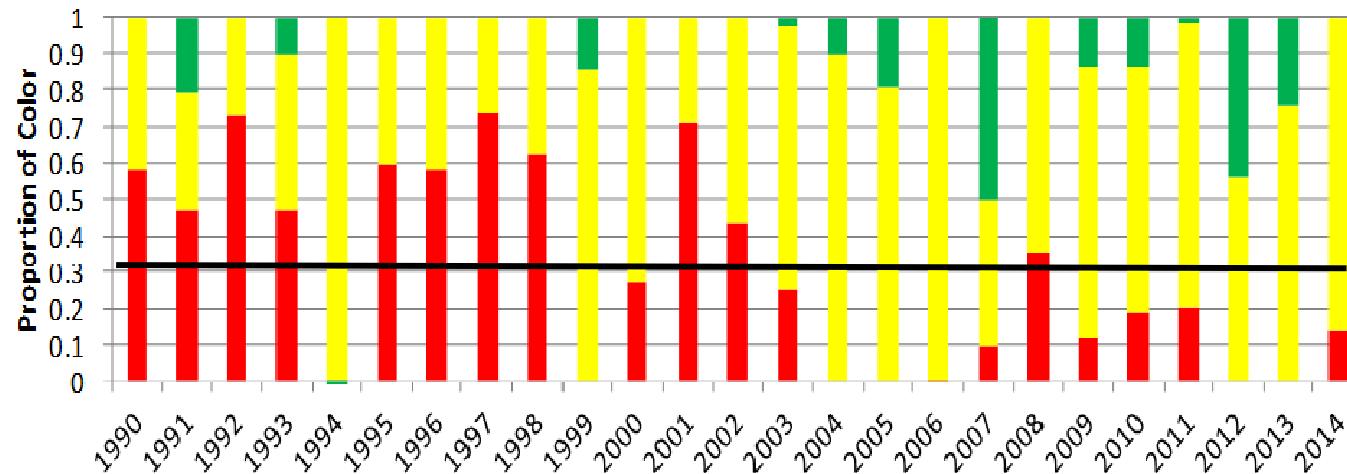
# Atlantic Croaker



Harvest composite characteristic index for Atlantic croaker.



Adult abundance composite characteristic index for Atlantic croaker.

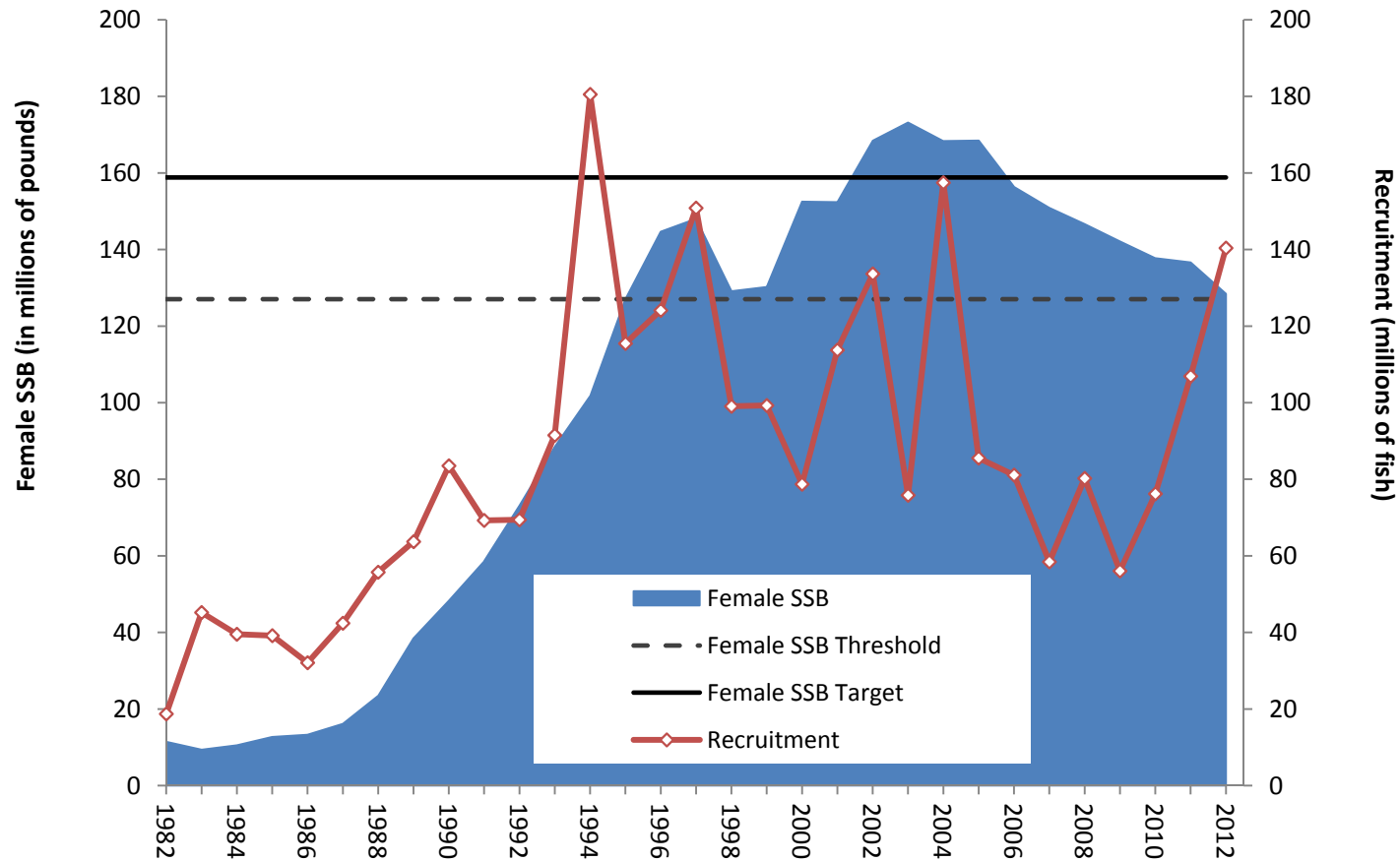




# Atlantic Striped Bass



**Atlantic Striped Bass Female SSB & Recruitment**  
Source: ASMFC Atlantic Striped Bass Stock Assessment, 2013



# Atlantic Striped Bass



- **Board Adherence to Scientific Advice**
- In response 2013 benchmark assessment, the Board implemented new F reference points as well as state-level regulations to reduce F to a level that is at or below the new F target for the 2015 fishing season.
- Final implemented state regulations are projected to reach a 25% reduction in F

# Black Sea Bass



## Significant Sources of Uncertainty

- Assessment assumes a completely mixed stock, while tagging suggest otherwise
- Evidence of changes in the spatial distribution
  - expansion to the north
- Due to the unusual life history strategy (females changing sex to male) the assumptions of a constant  $M$  in the model may not adequately capture the dynamics in  $M$
- The unique life history also makes the determination appropriate reference points difficult

## Prioritized Research to Reduce Scientific Uncertainty

- Develop reference points and assessment methods to account for unique life history
- Explore a spatially structured assessment to address the incomplete mixing of the stock
- Evaluate implication of range expansion to stock and fishery dynamics



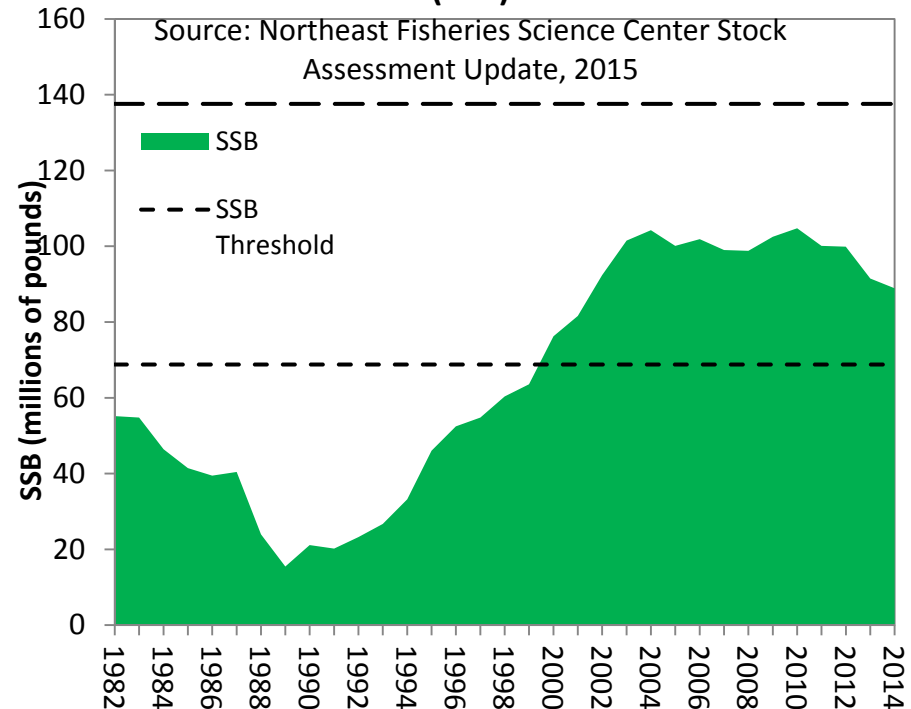
Species or Complex Name	Stock Status		References/Comments
	Overfished	Overfishing is Occurring	
<b>Pelagic</b>			
Porbeagle	Yes	No	Porbeagle Stock Assessment, ICCAT Standing Committee on Research and Statistics Report (2009)
Blue	No	No	ICCAT Standing Committee on Research and Statistics Report (2008)
Shortfin mako	No	No	ICCAT Standing Committee on Research and Statistics Report (2012)
<b>Large Coastal Sharks (LCS)</b>			
Blacktip	Unknown	Unknown	SEDAR 11 (2006)
Aggregated Large Coastal Sharks - Atlantic Region	Unknown	Unknown	SEDAR 11 (2006); difficult to assess as a species complex due to various life history characteristics/ lack of available data
<b>Small Coastal Sharks (SCS)</b>			
Atlantic Sharpnose	No	No	SEDAR 34 (2013)
Bonnethead	No	No	SEDAR 34 (2013)
Finetooth	No	No	SEDAR 13 (2007)
<b>Hammerhead</b>			
Scalloped	Yes	Yes	SEFSC Scientific Review by Hayes, et al. (2009)
<b>Blacknose</b>			
Blacknose	Yes	Yes	SEDAR 21 (2010)
<b>Smoothhound</b>			
Smooth Dogfish	No	No	SEDAR 39 (2015)
<b>Research</b>			
Sandbar	Yes	No	SEDAR 21 (2010)
<b>Prohibited</b>			
Dusky	Yes	Yes	SEDAR 21 (2010)

# Summer Flounder



- Not over fished but overfishing is occurring
- Recruitment below average since 2010
- Retrospective pattern evident which impacts projections
- Probability of overfishing in 2016 and 2017 is higher than the MAFMC risk policy

Summer Flounder Spawning Stock Biomass (SSB)



# Tautog



- Overfished and overfishing is occurring on a coastwide basis
- Assessment recommends two regional approaches to assess and manage the resource with varying stock status
- Management Board initiated an Amendment to address the assessment results



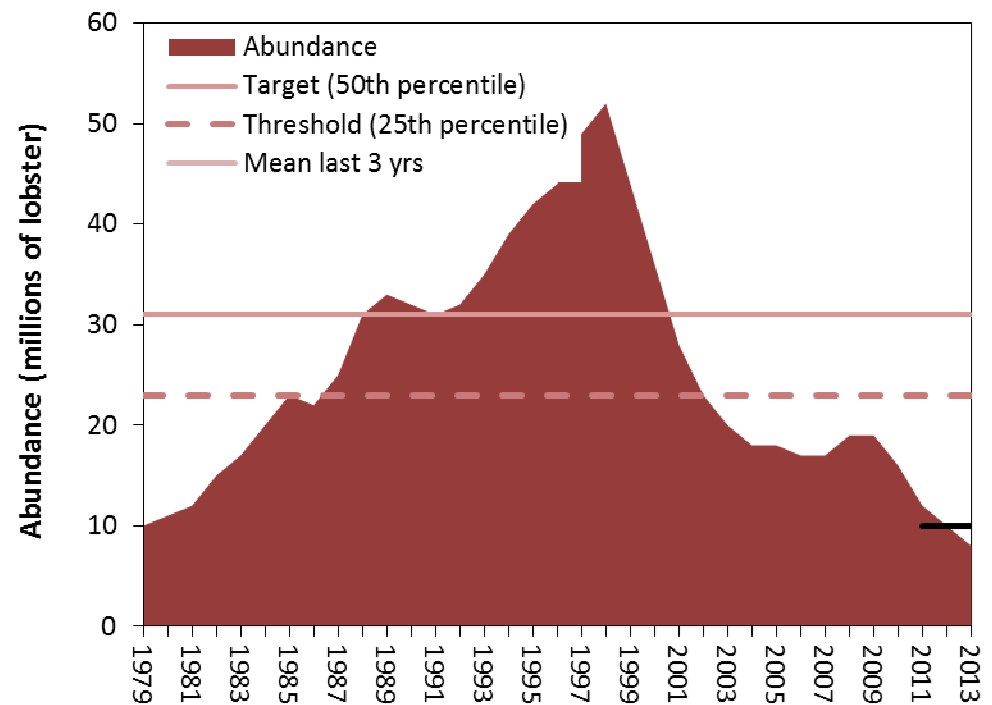
# Depleted Species

- American Eel
- American Lobster (SNE)
- American Shad
- Northern Shrimp
- River Herring
- Weakfish
- Winter flounder (SNE/MA)

# SNE Lobster



- Depleted and overfishing not occurring
- The inshore portion of the stock shows a dramatic decline in spawning stock abundance
- The stock has not rebuilt and is in recruitment failure
- TC advised to use output controls, Board continues to use input measures
- TC advised 50-75% reductions in SNE LCMAs; Board approved 10% reduction



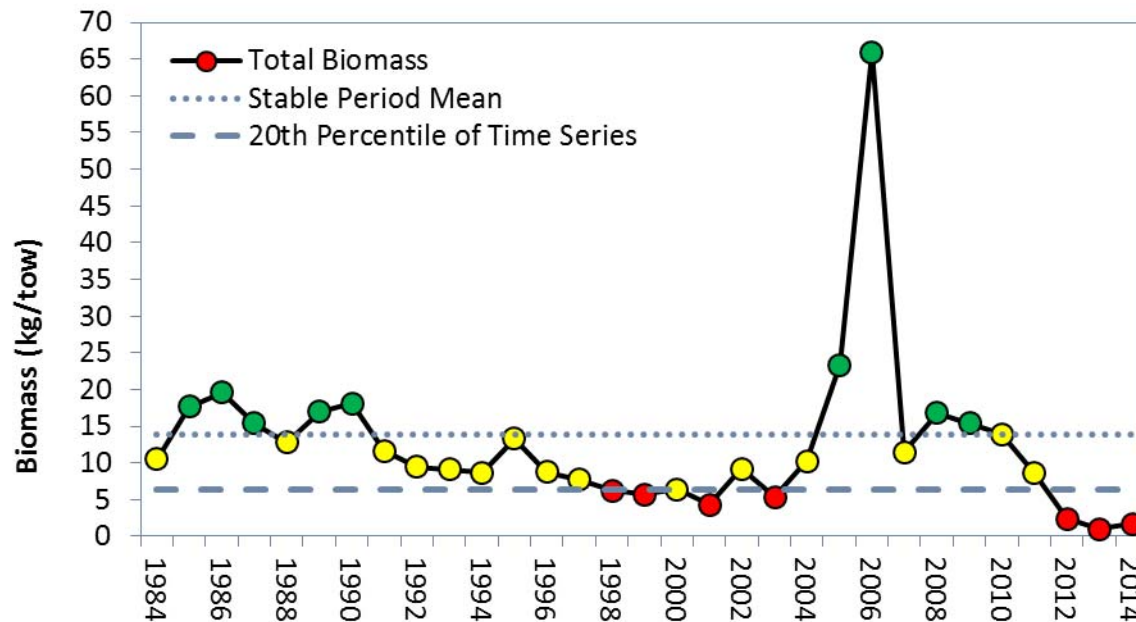


# Northern Shrimp



- Due to failed recruitment, stock is not expected to recover until at least 2017
- Section implemented a moratorium in 2014 and initiated an amendment to look at limited entry

**Total Biomass of Northern Shrimp from the Gulf of Maine Summer Shrimp Survey**





# Unknown

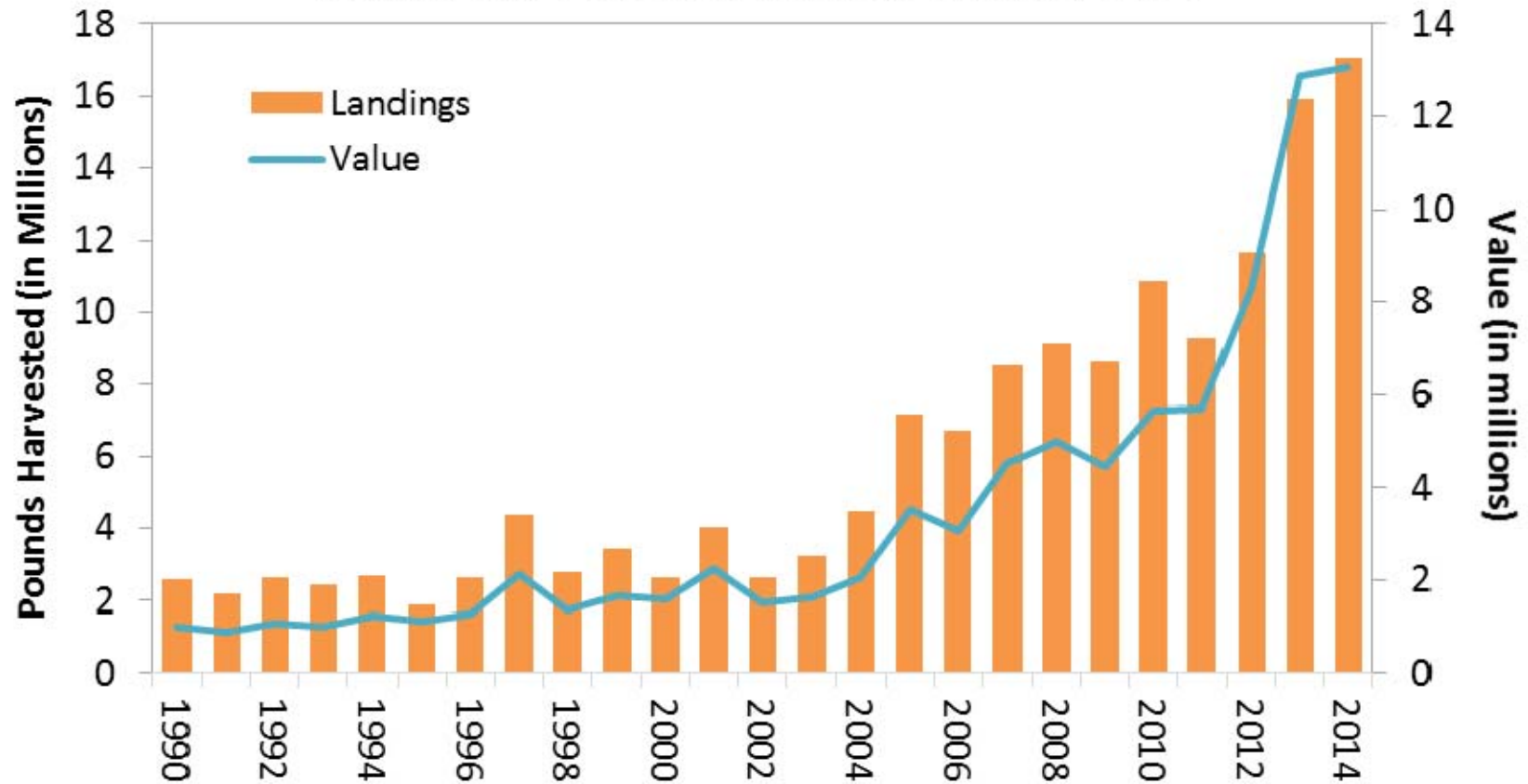
- Atlantic Sturgeon
- Jonah Crab
- Spot
- Spotted Seatrout

# Jonah Crab



## Landings and Value of Jonah Crab

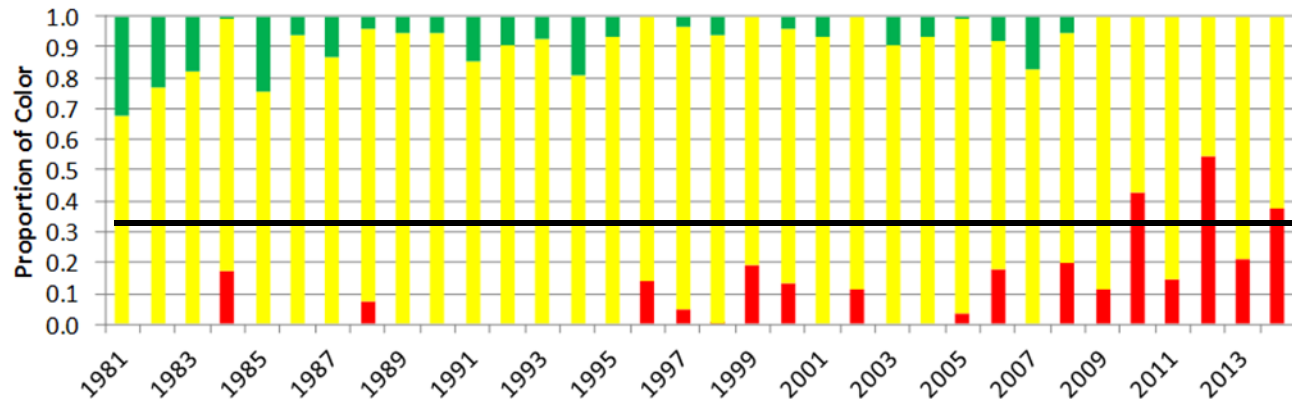
Source: NMFS Fisheries Statistics Division, 2014



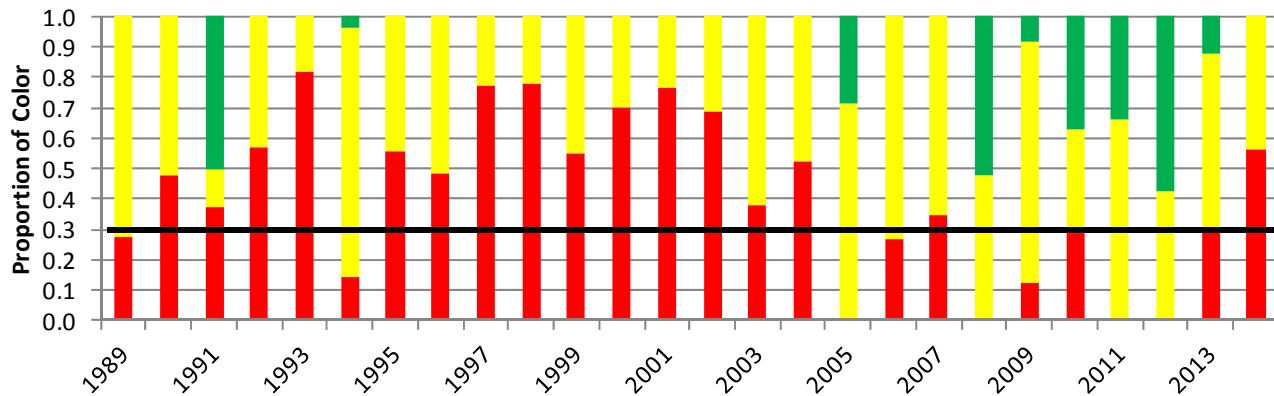
# Spot



**Traffic Light Analysis of Spot Commercial and Recreational Harvest**  
Solid line represents 30% threshold.



**Traffic Light Analysis of Spot Fishery-independent Survey Indices**  
Solid line represents 30% threshold.





# **Enforceability Guidelines Revision**

Presented to ISFMP Policy Board

August 6, 2015



# Charge to LEC

- Original Guidelines prepared in 2009
  - Designed to provide enforcement advice to managers
  - General enforcement precepts
  - Ratings of various management strategies
- 2015 Action Plan charge to review and revise
- Seeking ISFMP Policy Board Approval



# LEC Review and Update

- LEC reviewed original document
- Online ranking survey of LEC members
  - Re-ranking of management strategies
  - Developed ranking matrix table from survey
- Document revised and updated
  - Incorporated new ranking system and results
  - Incorporated material from similar federal document



# 2015 Guidelines Format

- Three Sections
  - General Precepts
    - Simplicity, Consistency, Stability, Effectiveness, Safety
  - Enforceability Ratings and Matrix Table
    - Overall, Dockside, At-Sea, Airborne ratings
  - Enforcement Strategies and Recommendations
    - Average Overall Rating for each strategy
    - Recommendations to Enhance Enforceability





# Revised Ranking Matrix

MANAGEMENT MEASURES	Average Ranking	OVERALL RATING	DOCKSIDE RATING	AT-SEA RATING	AIRBORNE RATING
Bag and Possession Limits (low volume)	4.67	Green	Green	Green	Red
Minimum/Maximum Size Limits	4.67	Green	Green	Green	Red
Permits	4.67	Green	Green	Green	Red
Prohibited Species	4.67	Green	Green	Green	Red
Closed Seasons	4.60	Green	Yellow	Green	Yellow
Closed Areas	4.53	Green	Red	Green	Green
Gear Marking Requirements	4.07	Green	Yellow	Green	Red
Gear Regulations except Method of Take	4.07	Green	Yellow	Green	Yellow
Method of Take	4.07	Green	Yellow	Green	Yellow
Bycatch Prohibitions	4.00	Green	Green	Green	Red
Slot Limit	4.00	Green	Green	Green	Red
Trophy Fish Allowance	4.00	Green	Green	Green	Red
Vessel Monitoring Systems (VMS)	3.87	Green	Yellow	Green	Yellow
Gear Restricted Areas	3.67	Green	Red	Green	Yellow
Electronic Reporting	3.67	Yellow	Yellow	Yellow	Red
Trip Limits (Daily)	3.47	Green	Green	Green	Red
Days at Sea	3.27	Yellow	Yellow	Yellow	Yellow
Annual Quotas	3.07	Yellow	Yellow	Red	Red
ITQ/IFQ/LAP	3.00	Yellow	Yellow	Yellow	Red
Bycatch Limit (weight or volume)	2.73	Yellow	Yellow	Yellow	Red
Trip Limits (Aggregate)	2.73	Yellow	Yellow	Green	Red
Catch-Release Fishing	2.60	Yellow	Yellow	Yellow	Red
Bycatch Limit (percent of total catch)	2.27	Yellow	Yellow	Yellow	Red
Harvest Tolerances (wt./vol./percent)	2.27	Yellow	Yellow	Yellow	Red
Targeting Prohibition	2.21	Yellow	Yellow	Yellow	Red
Limited Drag or Soak Time	1.93	Yellow	Red	Yellow	Yellow