NOAA FISHERIES

Sea Turtle Bycatch in Trawl Fisheries
Public Input Received

ASMFC May meeting

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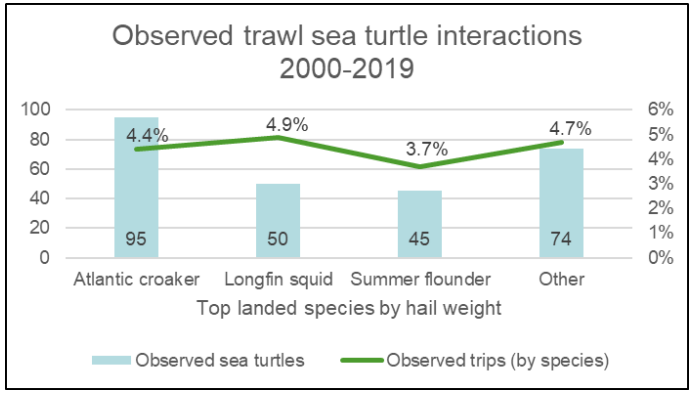
Recap - why are we doing this?

- ESA and MSA require bycatch be minimized
- Total trawl bycatch *estimate* (2014-2018) of 583 loggerheads, 46 Kemp's ridleys, 16 greens, and 26 leatherbacks
- Atlantic croaker, longfin squid, and summer flounder fisheries represent 72% of *observed* trawl interactions
- Research conducted on TED designs; final research underway
- Considering management measures and rulemaking



Measures under consideration

1) requiring TEDs with a large escape opening in trawls that target Atlantic croaker, weakfish, and longfin squid to reduce mortality resulting from accidental capture in these fisheries
2) moving the current northern boundary of the TED requirements in the summer flounder fishery to a point farther north to more comprehensively address capture in this fishery
3) amending the TED requirements for the summer flounder fishery to require a larger escape opening to allow the release of larger hard-shelled and leatherback sea turtles
4) adding an option requiring limited tow durations, if feasible and enforceable, in lieu of TEDs to provide flexibility to the fisheries

Input/Public Comment Opportunities

Fishery management meetings:

- NEFMC – December
- MAFMC – December
- ASMFC – January
- MAFMC Advisory Panel (joint longfin squid, summer flounder)

Verbal comment:

- Virtual stakeholder webinars:
  - February 16 (croaker focus)
  - March 1 (longfin squid focus)
  - March 14 (summer flounder focus)
- Call in days:
  - March 4 and March 22

Written comment: Email nmfs.gar.turtletrawl@noaa.gov. Input accepted until May 31, 2022.

What did we hear?

Participation

- Webinars: croaker (9); longfin squid (13); summer flounder (12)
  - Mostly states, industry, and interested public
  - Mostly questions
- Call in days: no responses
- Written comments (so far): 3 responses
- Most feedback from Council and AP (18 attendees) meetings
- Overall – 31 questions, 32 comments

What did we hear?

Geographic scope

- Exempt smaller vessels from the new regulations
- Exempt waters inside COLREGS line, consider inshore/offshore

Fishery definitions

- Appropriate to combine weakfish and croaker, but both limited effort now
- Consider combining summer flounder and squid
- Consider looking at gear type (e.g., flynets) rather than specific target species

Tow time issues

- Definition – consider tow time begin when winch engaged
- Concerns over lower CPUE, resulting in higher swept area which may increase bycatch and increase costs
- Need to ensure enforceability of tow time limits

What did we hear?

Economic impacts

- Direct economic loss for squid, not able to compensate by targeting another species
- Need evaluation of economic impacts of potential lost catch

Implementation

- Consider maximum limit on possession of species before requiring TEDs
- Consider using water temperature as basis for regulations
- Cable TEDs likely will be preferred by industry
- Provide options so industry can choose what works for them
- Need to continue to engage industry and obtain input on gear characteristics
- Support bycatch reduction measures

What did we hear?

<u>Information needs</u>

Turtle bycatch

- Takes over time and by region, by levels of observer coverage and fishing effort
- Evaluate takes by trawl net characteristics
- Consider how TEDs currently working in comparison to take numbers
- Evaluate vessel strikes, marine debris and recreational fishing impacts; address other mortality sources instead of just commercial trawl fishing
- Turtle population and trend numbers

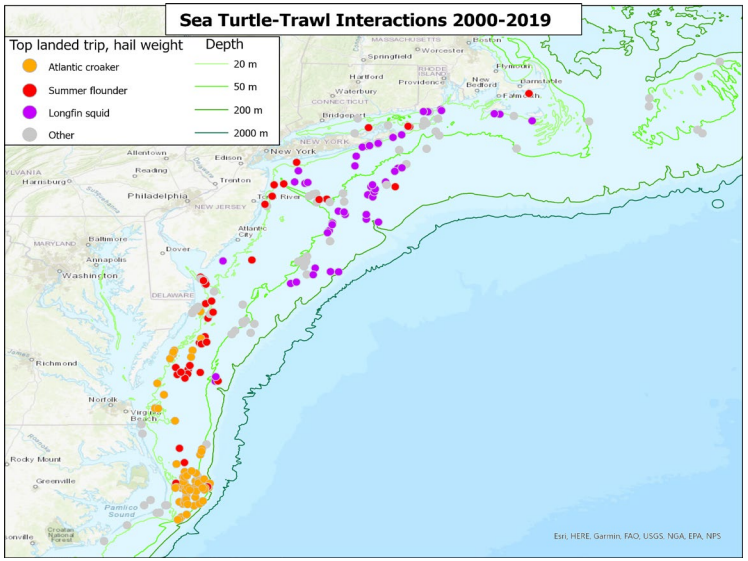
Gear

- Evaluate commercial fishing effort over last 10 years
- Tow duration data, by vessel size
- Continue to evaluate durability and clogging of TEDs

What did we hear?

Some of the questions

- Research results – sample sizes, study details
- Water depth of takes
- Location and seasonality of future regulations
- Bycatch reports and estimation methodology
- Mortality numbers and evaluation process
- Observer coverage levels
- Recovery criteria
- Turtle behavior (day vs night, in front of net)
- Use of cameras in gear
- Possible use of hatcheries



What information is still needed?

- Mitigation Measures (e.g., fishery/gear definitions)
- Operational Considerations
- Economic Considerations
- Information to include in our future bycatch reduction efforts

…ANY AND ALL INPUT STILL DESIRED!

For more information, descriptions of TED designs, research results, measures under consideration, information needed, recordings of webinars, and how to comment, visit: **https://www.fisheries.noaa.gov/sea-turtle-bycatch-reduction-trawl-fisheries**.

Next steps

MAFMC, NEFMC, ASMFC meetings; obtain comment
Written comments accepted until May 31
Comments summarized and reviewed

Research ongoing/planned
Management review

Rulemaking?

For more information, contact:
Carrie Upite (carrie.upite@noaa.gov, 978.282.8475)

Mid-Atlantic Fishery Management Council

Potential redevelopment of the Research Set-Aside (RSA) Program

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

Background of MAFMC RSA Program

- Developed as Framework 1 to the following FMPs
  - Mackerel, Squid, Butterfish
  - **Summer Flounder, Scup, and Back Sea Bass**
  - **Bluefish**
  - Tilefish
- Final approval in 2001 and first projects funded in 2002
- Funding was generated through the sale of a portion of each species' quota (0-3% of a fishery's TAL)
- From 2002 – 2014, 39 projects were funded totaling $16 million
- Suspended in 2015 – RSA allocation set to zero

MAFMC RSA Program Issues

- Costs:
  - Administrative and enforcement costs not considered initially
  - Value of fishing opportunities very different across species
  - Costs outweigh benefits
- Enforcement:
  - Uncovered financial incentives to not report trips/all RSA landings leading to noncompliance
    - National Standard 1 (prevent overfishing) concerns
  - Recreational landing reporting is not verifiable through dealer reporting
  - Capacity to monitor and enforce all RSA trips
- Research:
  - Number of projects failed peer review
  - Application and utility to management

All leading to a lack of public trust in program

Process and Timeline for Possible RSA Redevelopment

- **April 27th** – RSC meeting to review all input and develop guidance and final recommendations for Council consideration
- **June 7–9** – Council meeting to review RSC recommendations and make decision on whether to redevelop the RSA program
  - In Riverhead, NY as a hybrid meeting
- Depending on decision from Council:
  - If no, further (immediate) work on redevelopment would end
  - If yes, begin to develop appropriate management action document (i.e., framework or amendment)
    - Depending upon action and included components, likely 1+ year to complete – earliest would be a 2024 implementation

Prioritized & Refined Draft Goals

- **Goal 1** – Produce quality, appropriately peer-reviewed research that maximizes benefits to the Council, management partners, and the public and enhances the Council's understanding of its managed resources (Research)
- **Goal 2** – Ensure effective monitoring, accountability, and enforcement of RSA quota (Enforcement and Administration)
- **Goal 3** – Generate resources to fund research projects that align with the priorities of the Council (Funding)
- **Goal 4** – Foster collaboration and trust between scientific and fishing communities and the general public

Areas of Consideration in New Program

Administration/Enforcement

- Call-in/notification/reporting requirements
- Shore-side monitoring of RSA quota
- Number of landing locations
- Number of vessels participating
- Verification of for-hire harvest
- Administrative burden and costs relative to benefit

Funding

- Species/FMP potential RSA allocation was available
- Portion of Acceptable Biological Catch (ABC) set aside
- Funding mechanisms
- RSA quota allocation
- Lack of trust in third party quota process
- Disconnect and less collaboration between researcher and industry

Research

- Principal investigator disinterest/lack of project proposals
- Perceived conflicts of interest
- Quality research/peer review
- Funding for species research
- Data availability/open access
- Projects not used in science and management

ASFMC/State Engagement & Cooperation

- Potential/example areas of state involvement in RSA redevelopment**
  - Shoreside participation – opt in/out provision
    - Vessel participation – caps, state/federal permit holders, and phase in options
    - Location/timing of offloads
  - For-hire tracking of harvest
    - Staff as observers on RSA trips
  - Best practices or common/standard approaches for implementation across states
    - Use of ASMFC LEC to help develop
  - Research priority setting
- Potential/example processes and areas for cooperation with RSC/Council**
  - Engagement in process for potential future management action (e.g., framework/amendment development)
  - Future program evaluations and updates

** Not intended to be comprehensive lists

Update on Commercial Tagging Program Initial Survey

ISFMP Policy Board

May 5, 2022

Background

- October 2021: Board considered questions for the LEC to answer to help assess;
  - 1) compliance with tagging program
  - 2) impact of the program in reducing illegal harvest and markets
- January 2022
  - LEC Report and public comments reporting damage and mortality issues
  - Assigns Staff to survey dealers for market information

Update

- 25 Dealers provided by the states
  - 13 from NJ, 3 from CT, 2 from MA, 7 from RI
- 11 responses, 3 sell live tautog
  - 1 from RI
    - No issues with the tag
  - 2 from MA
    - 1 Neutral Response
      - Experienced some losses in first year of program (2020) due to the learning curve of the tags and applicator but believes it is no longer an issue.
      - Currently no mortality or shortened shelf life issues
      - On average a 9% increase in ex-vessel price from 2017-2019
    - 1 Negative Response
      - Reported 80% of tags fall off and have caused significant damage and mortality to the fish
        - » Damage on 50-75% of fish
        - » Mortality from 30-40% to 40-60% and shelf life decreased by >3 months
        - » Factors have caused a price decrease from$11 to $8.75-$9

New York Survey

- Shippers/Dealers
  - 10 responses (22% of total)
    - Live storage used by 89% of respondents
      - 57% of respondents hold fish for >2 months
  - Issues
    1. Tags not locking/falling out (27%)
    2. Tags causing excessive damage (23%)
    3. Tags causing lesions to appear on the fish (19%)
  - 50% prefer changing the current style of tag
    - 50% did not answer question

Questions?

CITES Proposed Listing

- 54 species of shark in the Carcharhinidae family have been proposed for CITES Appendix II listing
  - 12 of those species managed within the Coastal Sharks FMP
- CITES Appendix II listing would require exporters to obtain a permit from the national CITES Management Authority (USFWS) for each shipment that contains CITES listed specimens

CITES Proposed Listing

- Coastal Sharks Board recommended to the Policy Board that the Commission send a letter voicing opposition to the listing of the 54 species of shark.
- Board's Justification:
  - Commission already supports a responsible and sustainable coastal sharks management program with effective enforcement
  - Detrimental economic impacts
  - Low volume of U.S. exports of these species

CITES Proposed Listing

- Spiny Dogfish
  - Add to Appendix I
    - Insufficient information was provided to demonstrate that species meets the criteria for inclusion in Appendix I
  - Add to Appendix II
    - Insufficient information was provided to demonstrate that species meets the criteria for inclusion in Appendix II
- American eel
  - Add to Appendix II
    - Commission Assessment is critical
    - continue to monitor status and management efforts
    - seek info on the biological status and trade \in the U.S. & other range countries, specifically Canada and the wider Caribbean region
    - U.S. FWS Office of Law Enforcement supports inclusion in Appendix II

Harvest Control Rule
Draft Addenda/Framework

ASMFC Spring Meeting

May 5, 2022




Outline

1. Background
2. Harvest Control Rule Options
3. Target Metric for Setting Measures
4. Conservation Equivalency
5. Accountability Measures
6. Preliminary Summary of Public Comment– *Hearings Only*
7. Next Steps




Background and Timeline

- **February 2022**: Policy Board approved HCR Draft Addenda for public comment. Council approved range of options for Framework. They also tasked the SSC with providing a qualitative evaluation of the five primary alternatives.
- **March/April 2022**: Public hearings held March 16 - April 13, 2022. Written comments accepted through April 22, 2022.

Statement of the Problem

- The Commission & Council's current recreational measures setting process faces several challenges
  - Concerns related to uncertainty and variability in the recreational fishery data
  - Need to change measures (sometimes annually) based on those data
  - Perception that measures are not reflective of current stock status
  - Management measures have not always had their intended effect on overall harvest.




Goal Statement

Establish process for setting recreational measures that:

- prevents overfishing,
- is reflective of stock status,
- appropriately accounts for uncertainty in the recreational data,
- takes into consideration angler preferences, and
- provides an appropriate level of stability and predictability in changes from year to year.




Management Options for Setting Measures

- 5 possible approaches for setting bag, size, season limits.
- Key differences include:
  - Information, such as expected harvest, stock size, or fishing mortality, considered when setting measures
  - Circumstances under which measures would change
- Each option defines a process for establishing measures.
- None of the options implement specific measures. Measures would be established and modified through separate future specifications actions.

Management Options for Setting Measures

- **Option: A No Action**
- **Option B: Percent Change**
- **Option C: Fishery Score**
- **Option D: Biological Reference Point**
- **Option E: Biomass Based Matrix**

Option A: No Action
(Current Recreational Measures Setting Process)

Information Used:

Expected harvest	Stock Biomass	Fishing mortality	Recruitment	Biomass trend

- Expected harvest under status quo measures compared to future recreational harvest limits

Measures reviewed annually

Option B: Percent Change Approach

Information Used:

Expected harvest	Stock Biomass	Fishing mortality	Recruitment	Biomass trend

- Recent MRIP harvest estimates compared to future recreational harvest limits
- Stock size (biomass relative to biomass target)

Measures set for two years

Option B: Percent Change Approach

Row	Information Used			
	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})		
A	Harvest expected to be below the upcoming recreational harvest limits			
B	Harvest expected to be close to the upcoming recreational harvest limits			
C	Harvest expected to be higher than the upcoming recreational harvest limits			

Option B: Percent Change Approach

Row	Information Used			
	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})		
A	Harvest expected to be below the upcoming recreational harvest limits			
B	Harvest expected to be close to the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)		
		High (between the target and 150% of the target stock size)		
		Low (below the target stock size)		
C	Harvest expected to be higher than the upcoming recreational harvest limits			

Option B: Percent Change Approach

Row	Information Used		Target Change in Harvest	
	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})		
A	Harvest expected to be below the upcoming recreational harvest limits			
B	Harvest expected to be close to the upcoming recreational harvest limits			
		Low 	Small reduction: 10%	
C	Harvest expected to be higher than the upcoming recreational harvest limits			

Option B: Percent Change Approach

Row	Information Used			
	Estimated harvest compared to future limits			
A	Harvest expected to be below the upcoming recreational harvest limits			
B	Harvest expected to be close to the upcoming recreational harvest limits			
C	Harvest expected to be higher than the upcoming recreational harvest limits			

Option B: Percent Change Approach

Row	Information Used			
	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})		
A				
B				
C	Harvest expected to be higher than the upcoming recreational harvest limits 	Very high (at least 150% of the target stock size)		
		High (between the target and 150% of the target stock size)		
		Low (below the target stock size)		

Option B: Percent Change Approach

Row	Information Used		Sub-options for Target Change in Harvest	
	Estimated harvest compared to future limits			
A				
B				
C	Harvest expected to be higher than the upcoming recreational harvest limits	Very high 	Sub-Option B-2A: Small reduction: 10%	Sub-Option B-2B: No liberalization or reduction

Option B: Percent Change Approach

Row	Information Used		Target Change in Harvest	
	Estimated harvest compared to future limits	Stock Size (B/B_{MSY})		
A	Harvest expected to be below the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Sub-Option B-1A: Liberalization amount based on difference between expected harvest and RHL	Sub-Option B-1B: Large liberalization: 40%
		High (between the target and 150% of the target stock size)	Sub-Option B-1A: Liberalization amount based on difference between expected harvest and RHL	Sub-Option B-1B: Medium liberalization: 20%
		Low (below the target stock size)	Sub-Option B-2A: Small liberalization: 10%	Sub-Option B-2B: No liberalization or reduction
B	Harvest expected to be close to the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Small liberalization: 10%	
		High (between the target and 150% of the target stock size)	No liberalization or reduction	
		Low (below the target stock size)	Small reduction: 10%	
C	Harvest expected to be higher than the upcoming recreational harvest limits	Very high (at least 150% of the target stock size)	Sub-Option B-2A: Small reduction: 10%	Sub-Option B-2B: No liberalization or reduction
		High (between the target and 150% of the target stock size)	Sub-Option B-1A: Reduction amount based on difference between expected harvest and RHL	Sub-Option B-1B: Medium reduction:20%
		Low (below the target stock size)	Sub-Option B-1A: Reduction amount based on difference between expected harvest and RHL	Sub-Option B-1B: Large reduction: 40%

Option C: Fishery Score Approach

Combine four metrics into one fishery score:

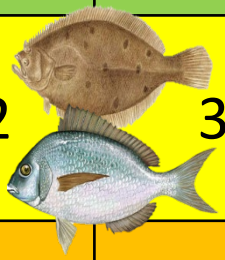
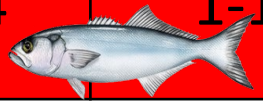
Expected harvest	Stock Biomass	Fishing mortality	Recruitment	Biomass trend

- Recent MRIP harvest estimate compared to future recreational harvest limits
- Stock size; i.e., biomass relative to biomass target
- Fishing mortality
- Recent recruitment

Each metric weighted depending on importance

Measures set for two years and predetermined

Option C: Fishery Score Approach

Bin	Fishery Score	Stock Status and Fishery Performance Outlook	Measures
1 	4-5	Good	Most Liberal
2 	3-3.99	Moderate	Liberal
3	2-2.99	Poor	Restrictive
4 	1-1.99	Very Poor	Most Restrictive

Option D: Biological Reference Point Approach

Information Used:

Expected harvest	Stock Biomass	Fishing mortality	Recruitment	Biomass trend

Primary information used:

- Stock size; i.e., biomass relative to biomass target
- Fishing mortality

Secondary information used:

- Expected harvest compared to RHL
- Recent recruitment
- Biomass trend

Option D: Biological Reference Point Approach

Stock Biomass Compared to Target Level	Overfishing is Not Occurring Fish are being harvested sustainably	Overfishing is Occurring Too many fish are being removed through fishing
Very High At least 150% of the target stock size	2015 / 2013 R↑ R↓ B↑ liberal liberal B↓ default default 1	2017 / 2019 R↑ R↓ Recent harvest limits **have not** been exceeded: B↑ default restrictive; B↓ restrictive restrictive Recent harvest limits **have** been exceeded: B↑ B↓ restrictive and re-evaluate measures 4
High Above the target, but below 150% target stock size	R↑ R↓ B↑ liberal liberal B↓ default default 2	R↑ R↓ Recent harvest limits **have not** been exceeded: B↑ default restrictive; B↓ restrictive restrictive Recent harvest limits **have** been exceeded: B↑ B↓ restrictive and re-evaluate measures 5
Low Below the target stock size, but more than 50% of the target stock size	R↑ R↓ B↑ default restrictive B↓ restrictive restrictive 3	R↑ R↓ Recent harvest limits **have not** been exceeded: B↑ default restrictive; B↓ restrictive restrictive Recent harvest limits **have** been exceeded: B↑ B↓ restrictive and re-evaluate measures 6
Overfished (Too Low) Less than 50% of the target stock size	**MOST RESTRICTIVE/REBUILDING PLAN** 7	

Option E: Biomass Based Matrix Approach

Information Used:

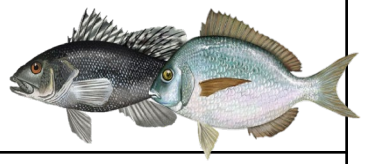
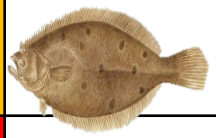
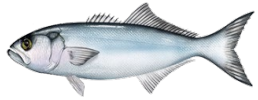
Expected harvest	**Stock Biomass**	Fishing mortality	Recruitment	**Biomass trend**

- Stock size; i.e., biomass relative to biomass target
- Stock size (biomass) trend

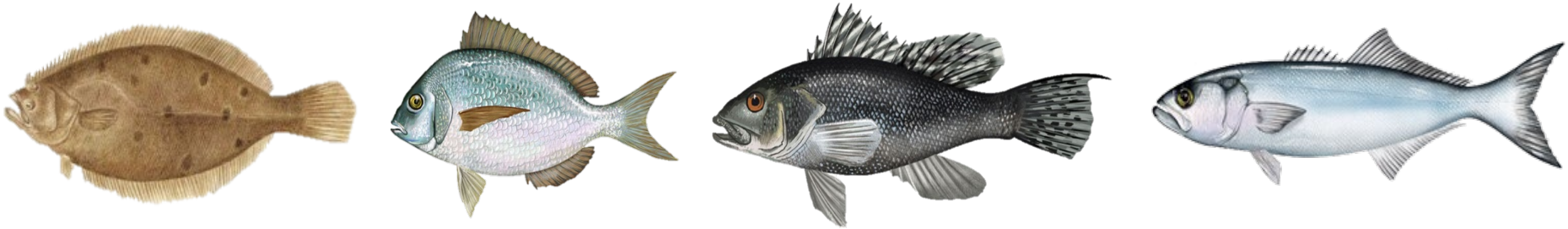
Measures set for two years

Measures would be pre-determined

Option E: Biomass Based Matrix Approach

Stock Size (i.e., biomass compared to target level)	Stock Size (Biomass) Trend		
	Increasing	**Stable**	**Decreasing**
Very High: At least 150% of target stock size	Bin 1 		
High: Above the target, but below 150% target stock size	Bin 1	Bin 2	
Low: Below the target stock size, but more than 50% of the target stock size	Bin 3 	Bin 4	
Overfished (Too Low): Less than 50% of the target stock size	Bin 5	Bin 6 	

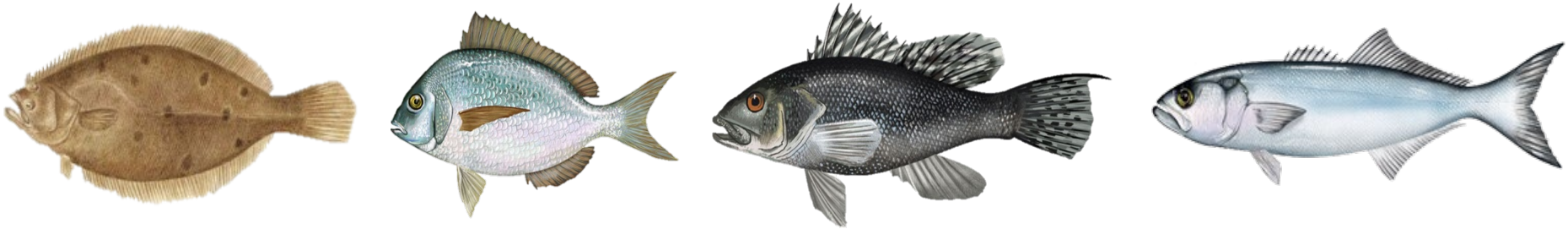
Target Metric for Setting Measures



Target Metric for Setting Measures

- Relevant to options with bins and associated pre-defined measures.
- Specify whether measures in each bin achieve a target level of:
  - Option 3.2A **Harvest**
  - Option 3.2B **Recreational dead catch** (harvest plus dead discards)
  - Option 3.2C **Fishing mortality**

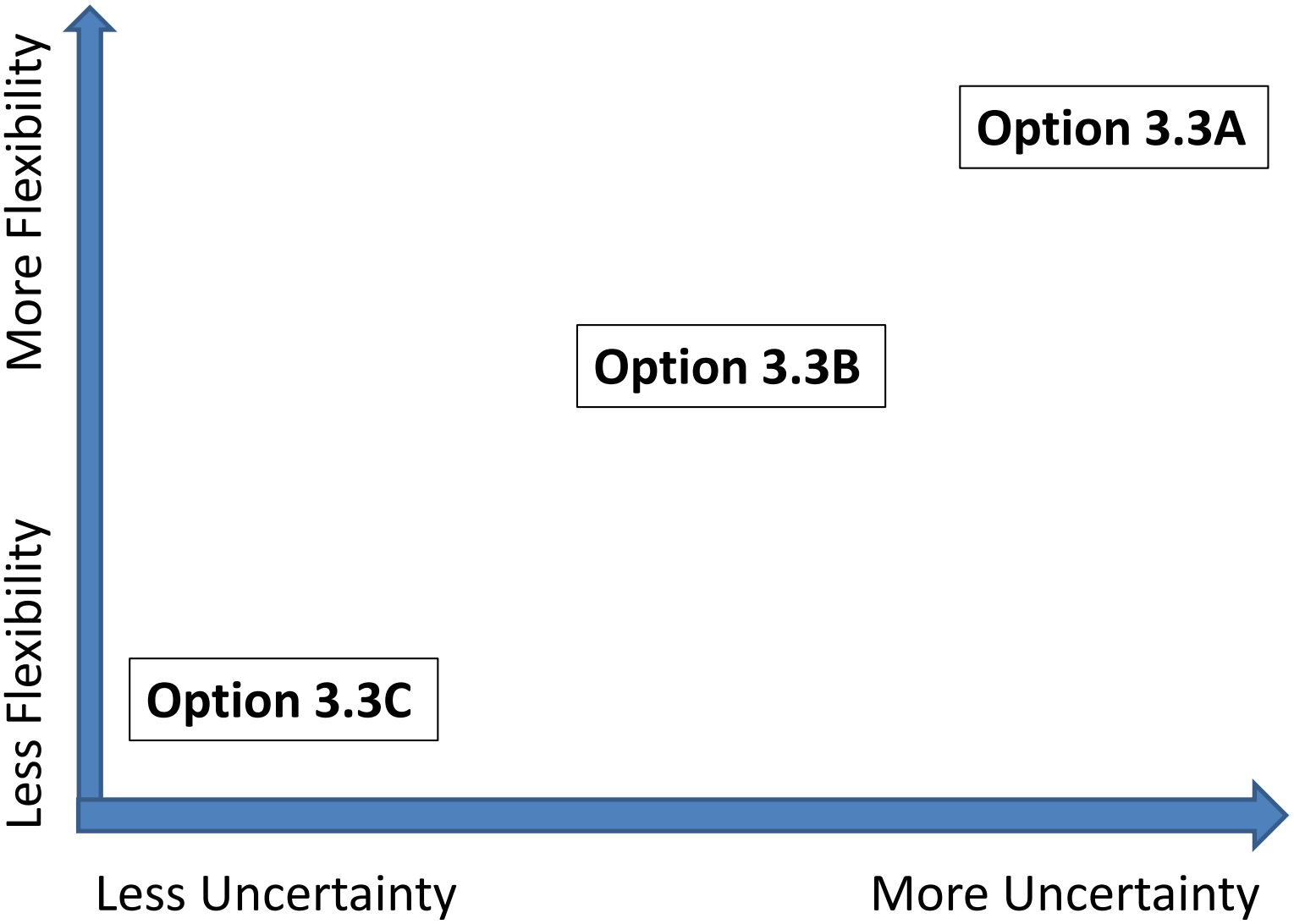
Conservation Equivalency



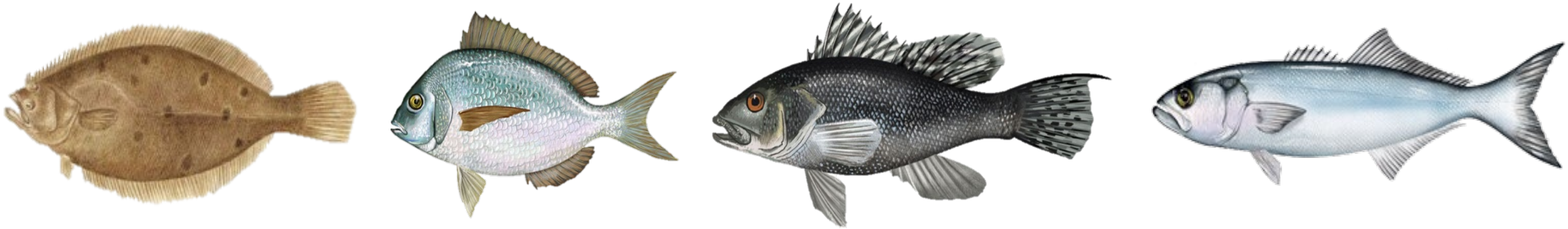
Conservation Equivalency Options

- Defines the level of flexibility states have in proposing alternative measures **after the specifications process**
  - Option 3.3A Allows individual states to adjust measures
  - Option 3.3B Allows grouping of states within a region to adjust measures
  - Option 3.3C Does not allow states or regions to adjust measures
- Under all Harvest Control Rule approaches, states and regions are able to provide input **during the specifications process**

Comparison of Conservation Equivalency Options



Accountability Measures



Accountability Measures

- Accountability measures aim to
  - Prevent catch limit overages
  - Correct or mitigate for overages when they do occur
- A required component of the federal management program.
- When catch limits have been exceeded, all options in the addenda require re-evaluation of measures to prevent future overages.
- Some sub-options consider if the response to an overage should be driven by whether or not the overage resulted in overfishing.

Preliminary Summary of Public Comment
Webinar Hearings Only

- 8 webinar hearings held March 16-April 13, 2022
- Webinar attendance (excluding Commission/Council staff) ranged from 9 to 63 people per hearing
- Written comments are still being tallied. A final public comment summary will be available with the briefing materials for the June Council/Policy Board meeting.
- The following summary of comments is based only on verbal public comments given at the hearings

Preliminary Summary of Public Comment
Webinar Hearings Only

- Comments on preferred options
  - Most people who spoke in favor of a specific option during a webinar hearing favored option B.
  - Many felt uncomfortable with C, D, and E due to current uncertainty in what management measures would be assigned to each bin.
  - No verbal comments provided during the hearings supported option A, status quo.

Preliminary Summary of Public Comment
Webinar Hearings Only

- Several comments on the lack of confidence in MRIP data, and how we should stop using MRIP data or consider other information, such as biomass, when making management decisions.
- For those who commented on conservation equivalency, the no action conservation equivalency option (states retain ability to propose conservation equivalent measures) was the preferred option.

Next Steps

- **May 10, 2022:** SSC meeting to discuss their review of HCR
- **May 25, 2022**: AP meeting
- **Late May 2022** (date TBD): FMAT/PDT meeting
- **May 27, 2022**: Most briefing materials for final action posted (including final SSC report and full summary of public comment period)
- **June 7, 2022**: Council/Policy Board meeting - **final action**
- **June – Dec 2022:** Development, review, and finalization of FW document; federal rulemaking process
- **Fall 2022:** Recreational Economic Demand Model and Recreational Fleet Dynamics Model available for use for one or more species
- **Fall – Winter 2022:** Use preferred HCR alternative to set rec measures for 2023

Questions?