Agenda Item H.3.a Supplemental CPSMT Presentation 1 June 2021

Agenda Item H.3 Coastal Pelagic Species Management Team Report on Management Framework for the Central Subpopulation of Northern Anchovy

Presented by Gregory Krutzikowsky June 28, 2021

Outline

- Background Information
- Flowchart A prescriptive management framework
 - Revisions, simplification, & parameter recommendations
 - Potential ways to implement
- Other approaches

Background Information

- Report highlights 3 background documents
 - Workshop report on CPS assessments
 - September 2016
 - SSC report on Northern Anchovy Assessments and Management Measures
 - November 2016
 - Joint SSC/CPSMT report on CSNA OFL process
 - April 2017

Flowchart

- October 2019 joint meeting
- Presented in November 2019
- Received support
 - Needed minor revisions
 - Needed specific parameter recommendations



Y = interval for full assessments regardless of trigger (could be infinity)

Z = interval for updating long-tem biomass (from survey)

X = interval for updating short-tem biomass (from survey), $X \le Z \le Y$.

Q = ABC buffer. Now 0.25, might be larger with more frequent updates.

- \mathbf{x}_1 is the threshold for changes in OFL due to changes in \mathbf{B}_{LT}
- \mathbf{x}_{2} is the threshold for reducing ABC in response to low \mathbf{B}_{ST}
- x_3 is a threshold for attainment



Y = interval for full assessments regardless of trigger
X = interval for examining short-term biomass from survey
ABC_d = ABC calculated from assessment
Q = ABC buffer = 0.25

 x_2 = threshold for reducing ABC in response to low \overline{B}_{ST}

 x_3 = threshold for ABC attainment that triggers evaluation of need for new assessment

 \overline{B}_{LT} = 10 year average (arithmetic mean) stock biomass from assessment

 \overline{B}_{ST} = 3 year average (arithmetic mean) stock biomass from surveys

CPSMT Parameter Recommendations

- Y = Z = 8 years: interval for full assessments and OFL regardless of trigger
- X = 2 years: interval for examining short-term biomass from survey
- Q = 0.25: ABC buffer
- $x_2 \ge 40\%$ reduction from ABC_d : threshold for reducing ABC in response to low \overline{B}_{ST}
- x₃ ≥ 90%: threshold for ABC attainment that triggers evaluation of need for new assessment
- $\overline{B}_{LT} = 10$ year average (arithmetic mean) stock biomass from assessment
- \overline{B}_{ST} = 3 year average (arithmetic mean) stock biomass from surveys

Basics of the process

- Every 8 years conduct a model-based assessment of CSNA
 - Determine the OFL based on the average LONG-TERM biomass over the last 10 years
 - ABC_d = Q*OFL = 0.25*OFL (the default ABC is a75% reduction from the OFL)
 - These are the default management values for the next 8 years
- Every 2 years determine if the SHORT-TERM biomass estimate from surveys triggers an ABC reduction from the ABC_d or not
 - Also examine if catch attainment has been $\geq 90\%$
 - If yes, evaluate if a new assessment should be done the next year



Ways to Implement the Flowchart

- SAFE document
 - Prepared and reviewed annually
 - Provides best available science on stocks and fisheries
- Modify COP 9, schedule 3
 - Add assessment schedule for CSNA
 - Add short-term biomass review for potential ABC changes
- FMP Amendment

Additional Implementation Considerations

- Consider changing fishing year to July 1 to June 30
 - Current fishing year is calendar year
 - Summer survey results available in February
 - ABC trigger examined in April
 - Changes implemented for July 1 June 30 fishing year?

Additional Implementation Considerations

- Flexibility
 - Ship breakdown
 - Government shuts down
 - Worldwide pandemics
 - Who knows what else?

Additional CSNA Management Approaches

- Set an assessment schedule to periodically update long-term OFL (similar to the Y row of flowchart where CPSMT recommended 8 year assessment interval)
- Set a trigger for ABC reduction (similar to the X row in the flowchart, but could set at single year or multi-year threshold levels)
- Consider something like what is done for Pacific mackerel – full assessment every 4 years and catch only projection assessments at interim 2 year periods

