Comprehensive ABC Control Rule Amendment

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Definitions

- Risk: Used to denote management risk and is the purview of the Council

- Uncertainty: Used to denote scientific uncertainty (of assessment results, projections, etc.) and is the purview of the SSC

ABC Control Rule Amd Process Overview

- Process begun in 2018, considers 5 general actions:
  1. ABC Control Rule Modifications
  2. Risk Tolerance Specification
  3. Probability of Rebuilding Specification
  4. Phasing in ABC Changes
  5. Carry-over of Unharvested Catch

ABC Control Rule Amd Process Overview

- Jan 2019 – Scoping conducted
- Mar 2019 – Council reviewed scoping comments
- Apr 2019 – SSC reviewed Amd, recommended additional information
  - P* comparison of current and proposed methodologies for assessed species
  - Story map examples walking through attribute evaluation and Risk Score calculation
- Doc put on hold awaiting NMFS guidance on carry-over and phase-in provisions

ABC Control Rule Amd Process Overview

- July 2020 – NMFS guidance on carry-overs and phase-ins
- Sept 2020 – Council direction to resume Amd development

- **Oct 2020 – SSC Review of Recommendations and Requested Additional Information**

Current ABC Control Rule

- Based on assessment category
- Organized into assessment Levels:
  1. Assessed using age, length, or biomass-based model
  2. Unassessed, DBSRA (reliable landings and life history)
  3. Unassessed, DCAC (data deficient for DBSRA)
  4. Unassessed, ORCS (Only Reliable Catch Stocks)
  5. Unassessed, Decision Tree (No reliable catch)
- Inflexible, couldn't add new methods

Review and Discussion of SSC Recommendations

1. Summary of Proposed Action and Alternatives
2. Summary of Current (through Apr 2019) SSC Recommendations
   - *SSC recommendations shown in italics*
3. Presentation of Additional Information (where available)
4. SSC Discussion of Revised/Additional Recommendations and Feedback

Action 1

Modify the Acceptable Biological Catch Control Rules

Alt. 1. Status quo ABC CRs for Dolphin/Wahoo, Golden Crab, Sargassum, and Snapper Grouper (none for Coral)

- Tables 2.1 & 2.2 (p. 6-9) of Attachment 16

Alt. 2. Categorizes assessed stocks based on info used to evaluate & characterize assessment uncertainty

- Removes "Tiers" language of Alt. 1; defines 4 Categories
- Cats 1-3: Use P* to determine ABC from assessment
- Cat 4: Decision Tree & expert judgement to determine OFL & ABC
- Table 3 (p. 12) for Category criteria/ABC determination & P* Example (p. 13) in Attachment 16 (ABC CR Amd Draft)

Action 1

Modify the Acceptable Biological Catch Control Rules

Alt. 3. Current CR (Alt. 1) plus ORCS for all FMPs

- Divides adjustment factors into:
  - Uncertainty (SSC) considerations
  - Risk tolerance (Council) considerations

Action 1 – Recommendations

Modify the Acceptable Biological Catch Control Rules

- *SSC recommends removing stock status from ABC CR*
- *SSC recommends removing stock Productivity and Susceptibility Analysis (PSA) score from uncertainty evaluation*
- *Stock status and PSA analysis recommended by SSC for consideration in determining management's acceptable risk of overfishing (Council)*

Action 1 – Recommendations

Modify the Acceptable Biological Catch Control Rules

- *SSC supports Alt. 2*
- *SSC recommends not including ecosystem component stocks in ABC CR provisions*
- *SSC does not support ABC CR based on data/assessment categories or levels; use uncertainty instead*
- *SSC supports allowing constant 3-5 yr ABC recommendations*
- *SSC recommends addressing circumstances, rules, & guidelines for ABC remands*

ORCS Approach

- Components of ORCS include:
  1. Catch Statistic
  2. Uncertainty Scalar
  3. Risk of Overexploitation
  4. Risk Scalar
- Risk of Overexploitation was done with SSC, Council, and AP members
- Risk Scalar is a Council decision

SSC Decisions on ORCS

1. Catch Statistic Development
   - Median/Average too restrictive
   - Stocks without issues
   - High uncertainty in catch
   - Used Max Catch in time period
   - SSC wanted to allow landings to fluctuate within uncertainty bounds without triggering action
2. Catch Statistic Uncertainty Scalar
   - Ranged from 1 to 2, depending on Risk category

Performance of ORCS

- See Attachment 14
  - Shows all stocks' landings trends
  - Has average landings of ORCS/Decision Tree time period
  - Has recent average landings of years with ORCS and/or Decision Tree ABCs
  - Shows if stocks are staying below the ABCs set by these methodologies

Action 2

Specify an approach for determining the acceptable risk of overfishing

Alt. 1. Acceptable [management] risk of overfishing determined by ABC CR criteria evaluated by the SSC

Alt. 2. Council will specify [management] risk tolerance for overfishing that will provide a P* adjustment of 0 to 20% to be added to the SSC's uncertainty adjustment, considering advice from SSC and AP

Action 2

Specify an approach for determining the acceptable risk of overfishing

Alt. 3. Council specifies acceptable risk of overfishing based on 3 stock biomass levels and 3 stock risk ratings; stock's risk category [rating] evaluated for each assessment (p. 18 Table, Attachment 16)

Risk rating (Stock Specific)	**Council's Default Risk Tolerance: accepted risk of overfishing (P* values)**		
	High Biomass Biomass exceeds B_{MSY} (or 110% B_{MSY} per Option 1)	Moderate Biomass Biomass is ABOVE the midpoint between B_{MSY} and MSST	Low Biomass Biomass is below the midpoint between B_{MSY} and MSST
low	0.45	0.45	0.4
medium	0.45	0.4	0.3
high	0.4	0.3	0.2

Action 2

Specify an approach for determining the acceptable risk of overfishing

Alt. 3. Council specifies acceptable risk of overfishing based on 3 stock biomass levels and 3 stock risk ratings; SSC evaluates stock's risk category [rating] for each assessment (p. 18 Table, Attachment 16)

Opt. 1. Allow highest [management] risk level if B>110%*B_{MSY}; use 110%*B_{MSY} to set biomass midpoint for boundary between moderate and low risk levels

Opt. 2. Allow Council to deviate from default risk levels by 0.1 for an individual stock, based on expert judgment, new info, or SSC/other expert advice; risk tolerance may not exceed 0.5

Opt. 3. Unassessed stocks default to moderate biomass, unless SSC recommends differently

Action 2

Specify an approach for determining the acceptable risk of overfishing

Alt. 4. Risk tolerance of no more than 0.5 specified for each stock directly, considering advice from SSC and AP

Action 2 – Current SSC Recommendations

Specify an approach for determining the acceptable risk of overfishing

- *Supports varying risk tolerance by biomass and considering PSA risk categories for stock risk ratings*
- *Recommends including preliminary risk ratings in draft amendment, & finalizing ratings in the approved amendment*
- *Recommends the Council consider basing risk tolerance on expected biomass at the end of the fixed ABC period, if necessary*
- *Recommends evaluating risk ratings as part of each stock assessment & when necessary to address new stock information*
- *Recommends considering social and economic considerations when evaluating risk tolerance*

Action 2 – Additional Analyses

Specify an approach for determining the acceptable risk of overfishing

- See Attachment 18 for P* examples
- See Attachment 19 for Risk Tolerance analysis

Action 3

Specify an approach for determining the probability of rebuilding success for overfished stocks

Alt. 1. No action; no approach specified

Alt. 2. When developing a stock rebuilding plan, the Council specifies probability of rebuilding success, considering advice from the SSC and AP

Alt. 3. When developing a stock rebuilding plan, Council specifies probability of rebuilding success based on stock risk rating, assigned by the Council considering advice from the SSC and AP; Council may deviate from default probabilities (High Risk: 80%; Mod. Risk: 70%; Low Risk: 60%) by 10% for unforeseen/unique circumstances

Action 3 – Current SSC Recommendations

Specify an approach for determining the probability of rebuilding success for overfished stocks

- *Supports specifying rebuilding probabilities and considering stock risk categories (Alt. 3)*

Action 4

Allow phase-in of acceptable biological catch changes

Sub-Action 4.1. Establish criteria specifying when phase-in is allowed.

Alt. 1. No phase-in of ABC changes is allowed.

Alt. 2. Allow when a new ABC is <X% of the existing ABC

Options 1-3. X = 70% (Opt. 1), 80% (Opt. 2), or 90% (Opt. 3)

Alt. 3. Allow phase-in when stock biomass exceeds a specific level

Option 1. B>MSST

Option 2. B>B_{MSY}-MSST midpoint

Sub-Action 4.2. Specify approach for phase-in of ABC changes

Alt. 1. Not allowed

Alt. 2-4. Allowed over 3 (Alt. 2), 2 (Alt. 3), or 1 year(s) (Alt. 4)

Action 4 – NS1 Carry-over Guidance

Allow phase-in of acceptable biological catch changes

- *Allow for stocks above MSST (not overfished)*
- *Assessment frequency should be considered in evaluating time period; MSE and economic analyses may be useful too*

- Should increases be phased in?
- Harvest uncertainty thresholds or guidance?

Action 4 – NS1 Carry-over Guidance

(Attachment 20)

- Box 2 (p. 26) summarizes phase-in requirements and guidelines
- Requirements for development of phase-in provisions:
  - Describe in FMP when the phase-in provision can and cannot be used, and how the provision prevents overfishing based on a comprehensive analysis
  - Phase-in time periods ≤ 3 years
  - Must prevent overfishing each year (i.e., the phased-in catch level cannot exceed OFL)
  - Evaluate appropriateness of phase-ins for stocks that are overfished and/or rebuilding, as the overriding goal for such stocks is to rebuild them in as short a time as possible
- Other considerations/guidance listed in Box 2

Action 5

Allow carry-over of unharvested catch

Sub-Action 5.1. Establish criteria specifying circumstances when unharvested catch can be carried over from one year to increase the available harvest in the next year.

Alt. 1. No carry-over of unharvested catch

Alt. 2. Carry-over allowed if the stock is neither overfished nor experiencing overfishing

Alt. 3. Carry-over allowed if B > midpoint between B_{MSY} and MSST AND stock is not experiencing overfishing

Alt. 4. Carry-over allowed for a fishery sector if that sector has experienced a regulatory closure due to catch exceeding that sector's ACL at least once in the previous 3 years

Alt. 5. Carry-over allowed for a fishery sector if total landings of all sectors over the previous 3 years < landed catch component of ABC for all fishery sectors over those same years; carry-over not allowed when ABC changes are phased-in

Action 5

Allow carry-over of unharvested catch

Sub-Action 5.2. Specify limits on the amount of unharvested catch that may be carried over from one year to increase the available harvest in the next year.

Alt. 1. No carry-over of unharvested catch.

Alt. 2. Allow carry-over for an individual fishery sector using the buffer between the ACL and ABC.

Alt. 3. Allow carry-over for an individual fishery sector that results in an adjusted ACL that exceeds the original ABC for the year for which the unharvested catch is carried-over

- If the OFL is unknown, the revised ABC may not exceed 105% (**Option 1**), 110% (**Option 2**), or 120% (**Option 3**) of the original ABC, or no carry-over will be allowed (**Option 4**)

Alt. 4. Allow carry-over for an individual fishery sector of up to 25% of the sector ACL

Action 5 – Current SSC Recommendations

Allow carry-over of unharvested catch

- *Allow for stocks that are neither overfished nor overfishing, and have catch close to ACL*
- *Consider B_{MSY}-MSST midpoint as threshold*
- *Add ToRs for assessment reviews and ABC recommendations to evaluate carry-overs*
- *Consider species biology, catch estimate precision*
- *Request updated projections to evaluate carry-over amount and basis for ABC following carry-over*

Action 5 – NS1 Carry-over Guidance

(Attachment 20)

- Box 1 (p. 23) summarizes carry-over requirements and guidelines
- Requirements for development of carry-over provisions:
  - Describe in FMP when the carry-over provision can and cannot be used, and how the provision prevents overfishing based on a comprehensive analysis
  - The resulting ABC recommended by the SSC must prevent overfishing and must consider scientific uncertainty consistent with the Council's risk policy
  - Consider the reason for the ACL underage
  - Evaluate appropriateness of carry-overs for stocks that are overfished and/or rebuilding, as the overriding goal for such stocks is to rebuild them in as short a time as possible
- Other considerations/guidance listed in Box 1

Action 5 – NS1 Carry-over Guidance

(Attachment 20)

- Stocks with unspecified OFL not recommended for carry-over
- Carry-over can be done by increasing ACL (ACL ≤ ABC) or increasing ABC (ABC ≤ OFL)
- Carry-over for overfished stocks at discretion of Council, but with caution

Additional Questions/Comments/Discussion?