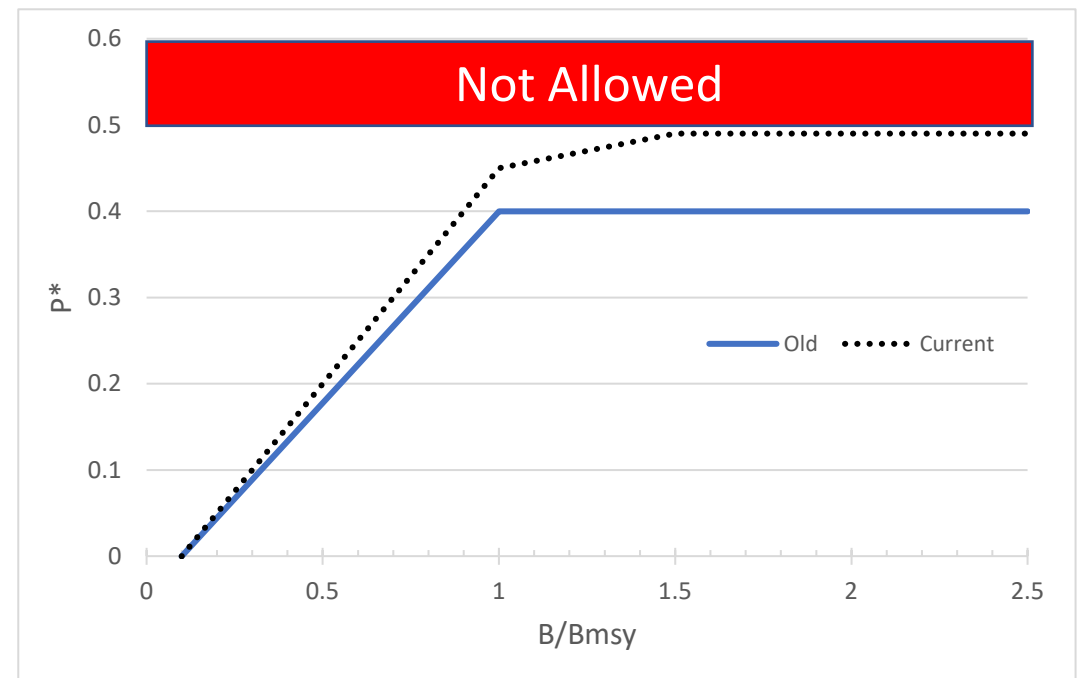# SSC Constant/Average ABC Sub-group Report

May 10, 2022

Baltimore SSC meeting

Problem

- The MAFMC has requested constant ABCs between assessments that achieve a specific average probability of overfishing (P*)

- The previous approach to generating constant ABCs fails as P* approaches 0.5 (OLF>ABC)

Example from July 2021, Scup

Variable				Averaged			
Year	OFL	ABC	P*	Year	OFL	ABC	P*
2022	32.56	32.11	0.49	2022	32.56	30.89	0.46
2023	30.09	29.67	0.49	2023	30.22	30.89	0.52

Potential solutions

- Status quo

- Three-step process

- Minimal projections

Status quo

- Use projections to calculate the OFL and ABC for each year by applying the control rule

- Conduct averaging

- Determine if average in any years exceeds the OFL
  - If so, we can choose a constant ABC at the minimum value, or
  - Provide no constant ABC for that stock

Three-step process

- Status quo (first two steps)

- Step 3: If average exceeds the OFL in any year, find the maximum constant catch that does not exceed a specific P* (need to determine threshold)

Minimal projections

- Only project the population to the first management year

- Calculate the OFL and ABC using the standard approach

- The ABC would remain constant at that value until the next assessment

New code needed (for any method)

• Provide pseudo-code to the NEFSC for them to implement in AGEPRO or another approach (e.g., R wrapper for AGEPRO)

    i. Need to continue discussions with the NEFSC about interest/time to create code to do this (both standard P* application and the constant/average process)

• The SSC develops the ABC calculation framework and then sends to the NEFSC assessment leads to use for projections and ABC calculations

    i. Will not have all the applications and bells and whistles of AGEPRO

    ii. Someone would need to implement this

Next steps

- Obtain input from SSC

- Refine options (if necessary)

- Work with the Center to develop code to calculate ABCs