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SSC Report to NEFMC

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Council meeting September 29, 2021



Overview

 Presentation will cover SSC meetings held on July 29 and August 24, 202 I

Will cover GB Yellowtail recommendations

Will cover Skate recommendations



Georges Bank Yellowtail Flounder TORs

- 1. Considering the Council's Risk Policy Statement, provide an OFL and an ABC recommendation for fishing years 2022 and 2023 that will prevent overfishing and meet the management objective to rebuild the stock, and that are consistent with the Council's ABC control rule for groundfish stocks.
 - a. The Council requests that the SSC forward a "Summary of Recommendations" section of the SSC's report by the end of the SSC meeting on August 24 so that it can be considered in developing recommendations for the US/Canada Transboundary Management Guidance Committee meeting.



Background

- Since 2014, Georges Bank yellowtail flounder (GB yellowtail) has been assessed using an "empirical approach"
 - Based on fishery-independent surveys: DFO (winter) and NOAA (spring and fall) and historical exploitation rate

- During the 2021 TRAC, a new approach was taken referred to as the "GB Yellowtail Limiter approach"
 - This approach sets catch advice based on survey information used for GB yellowtail along with the uncertainty from the survey within upper and lower biomass boundaries informed by management



Background

- Same as the empirical approach, the Limiter approach precludes formal estimation of reference points and status of the stock
 - Therefore, the SSC reaffirms that the OFL for GB yellowtail remains unknown.

 Using the Limiter approach, the TRAC recommended a catch limit of 200 mt



 Consistent with the advice of the TRAC, the SSC recommends an ABC of up to 200 mt for FY 2022 and FY 2023

- SSC deliberated on their catch advice and discussed the following factors:
 - Recommendation is consistent with SSC's previous advice of continuing low exploitation on the stock since stock conditions do not appear to have changed from the SSC's 2020 review



- The SSC deliberated on their catch advice and discussed the following factors (cont.):
 - The change in process for setting catch advice is important to investigate and test further if it will continue to be used
 - In the short term, the catch advice based on the approach approved by the TRAC appears to be the best scientific information available and is therefore supported by the SSC



- The SSC deliberated on their catch advice and discussed the following factors (cont.):
 - Miller et. al. (2021)* indicated that estimated survey biomass was lower than previously calculated
 - Increases historical exploitation rate from 6% (which the previous advice was based on) to 7%, changing what would have been the Empirical Approach 2022 catch advice from 161 to 184 mt
 - If the Empirical Approach were applied and took in to account missing survey information from the NEFSC Fall 2020 Bottom Trawl Survey, the catch advice would increase to 243 mt
 - By adopting the TRAC's new approach, the SSC restrains the catch advice and as such exploitation can be kept at a low level while this new approach's impact on the population is evaluated



- The SSC deliberated on their catch advice and discussed the following factors (cont.):
 - This relatively conservative approach to setting catch advice is reasonable given most of the survey information continues to indicate a downward trend with little sign of recovery
 - There are uncertainties due to the COVID 19 pandemic, like missing surveys in 2020, therefore survey information was generated with two surveys rather than three
 - Based on the realized quota utilization rates and information from the quota change model provided by the PDT, the SSC believes the socioeconomic impact of this ABC to the industry will be minimal
 - Generally speaking, this advice keeps exploitation low and does not change advice to the extent where other factors in the fishery will be impacted dramatically

- Fishery does not appear to be limiting stock recovery
- Continued low stock biomass and poor recruitment for this stock warrant the maintenance of low catch levels
- Advice offered is believed to be low enough to prevent overfishing and allow for rebuilding should environmental conditions become favorable for recruitment



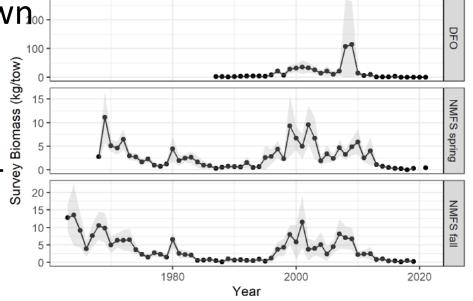
Catch Advice

• OFL:

$$-2022 - 2023 = Unknown_{\odot}$$

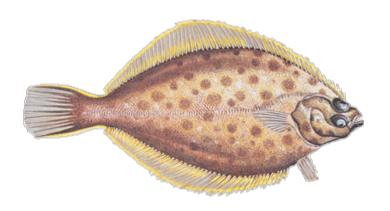
• ABC:

-2022 - 2023 = 200 MT





Questions?





Northeast Skate Complex TORs

• Review the information provided by the Skate Plan Development Team (PDT) and considering the Council's Risk Policy Statement, recommend an acceptable biological catch (ABC) for the Northeast Skate Complex for fishing years 2022-2023 consistent with the ABC control rule for skates.



- The SSC reviewed the PDT memo as well as the assessment update for skates
- The SSC continues to support the use of the index-based empirical approach for recommending an ABC for the Northeast Skate Complex, and notes that this method has performed well except for thorny skate
- Index-based approach does not allow formal estimation of population reference points, but proxy values have been developed for each species using research vessel survey data and fisheries catch information
 - Hence, stock status is evaluated with respect to these reference point
 proxies

- The SSC concludes that OFL for the Northeast Skate Complex remains unknown for fishing years (FY) 2022 and FY 2023
 - OFL cannot be determined in the absence of analytical assessments.

- The SSC recommends an ABC of 37,236 metric tons (MT) for FY 2022 and 2023
 - Consistent with the PDT recommendation titled "Alternative 2" and results from the use of modified research survey indices to account for survey strata not sampled during recent years due to mechanical issues with the survey vessel and disruptions from the pandemic



 The SSC agreed with all of the choices made by the assessment team and PDT in the generation of "Alternative 2"

- Additionally, landings have been below the TAL, therefore overfishing does not appear to be a problem even with uncertainties in survey and catch information
- Surveys are indicating stable to increasing trends across the complex
 - thorny skate index is also stable with potential positive trends,
 but the biomass level remains far below its historical levels



- Non-stationarity and whether reference points might need to be redefined in the context of changing ocean conditions and its impact on productivity is an important factor to consider moving forward
- The species have different life history traits, which is another factor to investigate to see if there were some way to incorporate these differences into the calculation of reference points or at least to consider them in development of specifications



- The SSC agreed with the PDT's conclusion that the averaging approach provides adequate information on which to base catch advice for this specification setting cycle
 - However, there is a need for a more systematic approach to address non-sampled strata in the trawl surveys, rather than using a case-bycase approach
 - Non--sampled strata may become more common in the future due to both natural and anthropogenic events
 - Evaluating approaches that are robust to missing values is therefore important and exploration of this during the 2023 assessment process is encouraged



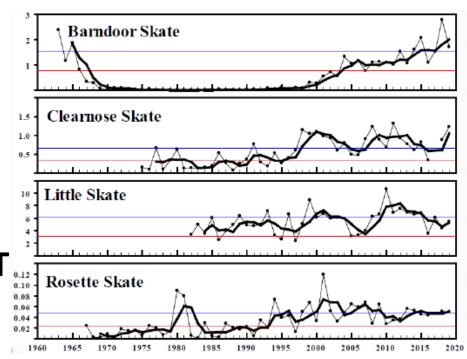
Catch Advice

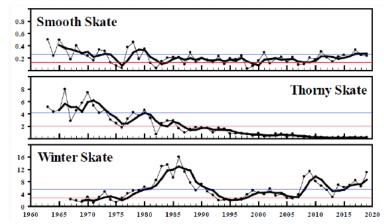
• OFL:

-2022 - 2023 = Unknown

• ABC:

 $-2022 - 2023 = 37,236 \text{ MT}_{\odot}$







Questions?



