## Butterfish Research Track WG <br> January 21, 2021 Agenda

## G-Hang link:

https://meet.google.com/fqx-opxr-yax
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1. Introductions and technical difficulties ( 10 mins , Jon)
2. Review previous meeting to-do list ( 30 mins )
a. Industry perspectives subgroup update (Kiersten, Chuck, Jason, Rob)
b. Data on butterfish consumed by tuna in the Mid-Atlantic update (Rob, Jon, Chuck)
c. Start year of assessment and ability to estimate stock-recruit relationship (Chuck, Jon)
i. Note, we previously agreed to fit models with 1989 and 1973 start years, and this will include evaluating estimation of a stock-recruit relationship and possible estimating misreported catch.
d. Why did previous assessments only use catch from two gear types? (Chuck)
i. Note, we previously agreed to use catch from all gear types.
e. Look at commercial catch by spatial area time series (Kiersten)
i. This was to help inform our decision that GOM strata should be added to NEFSC survey; are there fishery catches in GOM too?
f. Update on "estimating" butterfish slippage amounts (Andy, Kiersten, Chuck, Jon, et al.)
3. Previous research recommendations and progress ( 25 mins Chuck)
4. Surveys and indices, including bio data ( 45 mins Chuck)
5. Good of the order and next meeting plan ( 10 mins, all)
a. Might need 2 meetings per month for a few months

## Notes

## Butterfish Terms of Reference 2021 Research Track <br> (v. 10/01/2020)

1. Estimate catch from all sources including landings and discards. Describe the spatial and temporal distribution of landings, discards, and fishing effort. Characterize the uncertainty in these sources of data.
2. Present the survey data available (e.g., indices of relative or absolute abundance, recruitment, state surveys, age-length data, etc.), and describe the basis for inclusion or exclusion of those data in the assessment. Characterize the uncertainty in these sources of data.
3. Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and estimate their uncertainty. Include retrospective analyses (both historical and within-model) to allow a comparison with previous assessment results and projections, and to examine model fit.
4. Update or redefine status determination criteria (SDC point estimates or proxies for $\mathrm{B}_{\mathrm{MSY}}$, $\mathrm{B}_{\text {Threshold, }} \mathrm{F}_{\text {MSY }}$ and MSY) and provide estimates of their uncertainty. If analytic modelbased estimates are unavailable, consider recommending alternative measurable proxies for BRPs. Comment on the scientific adequacy of existing BRPs and the "new" (i.e., updated, redefined, or alternative) BRPs.
5. Make a recommended stock status determination (overfishing and overfished) based on new modeling approaches developed for this peer review.
6. Define the methodology for performing short-term projections of catch and biomass under alternative harvest scenarios, including the assumptions of fishery selectivity, weights at age, and maturity.
7. Review, evaluate and report on the status of the Stock Assessment Review Committee (SARC) and Working Group research recommendations listed in most recent SARC reviewed assessment and review panel reports, as well as the most recent management track assessment report. Identify new research recommendations.
8. Develop a "Plan B" for use if the accepted assessment model fails in the future.

## Additional Terms of Reference

1. Describe life history characteristics and the stock's spatial distribution, including any changes over time. Describe ecosystem and other factors that may influence the stock's productivity and recruitment. Consider any strong influences and, if possible, integrate the results into the stock assessment.
2. Evaluate consumptive removals of butterfish by its predators, including (if possible) marine mammals, seabirds, tunas, swordfish and sharks. If possible, integrate results into the stock assessment.
