



Tab E, No. 4(b)

Reef Fish Amendment 48/Red Drum 5

## Status Determination Criteria and Optimum Yield for Reef Fish and Red Drum



# Status Determination Criteria (SDC)

## What are they?

- Criteria used to determine condition of fish stocks and the fishery

## Why are they important to the Council?

- FMPs must define overfishing and overfished status
- Council must use measurable and objective criteria to do this

# Amendment Development Timeline

- Amendment 2014: Amendment started, low priority
- June 2017: Discussed at Council and motion to elevate priority status:

***Without opposition, the committee recommends, and I so move, to make the Status Determination Criteria Amendment a priority on the proposed action schedule.***

The Reef Fish and Red Drum FMPs are not in compliance with the Magnuson-Stevens Act



# Amendment Development

## Timeline continued

- **Aug. 2017** - Draft options to Council
- **Jan. 2018** - SSC review
- **Apr. 2018** – Revised draft to Council
- **May 2018** - SSC review: Focus on MSY Action
- **July 2018** - MSY working group: Review landings based approach in comparison to assessment results for some assessed stocks (Tab E, 4d)
- **August 2018** – Continued SSC review of MSY action
- **July 2019** - SSC Recommend SPR approach for MSY action
- **Aug 2019** - Revised draft to Council
- **Sept 2019** - SSC affirmed MSY preference for reef fish stocks and selected preferred alternative to define MSY for red drum using escapement
- **Oct 2019** – Revised draft to Council
- **March 2020** – SSC reviewed Optimum Yield Action
- **Sept 2020** – Council Approved PH draft
- **Nov 2020** – Virtual public hearing
- **Nov 2020** – Council reviewed and requested further information about MSY alternatives for data poor stocks

# Actions Under Consideration

**Action 1:** Maximum Sustainable Yield Proxies

**Action 2:** Maximum Fishing Mortality Threshold

**Action 3:** Minimum Stock Size Threshold

**Action 4:** Optimum Yield

# Action 1:

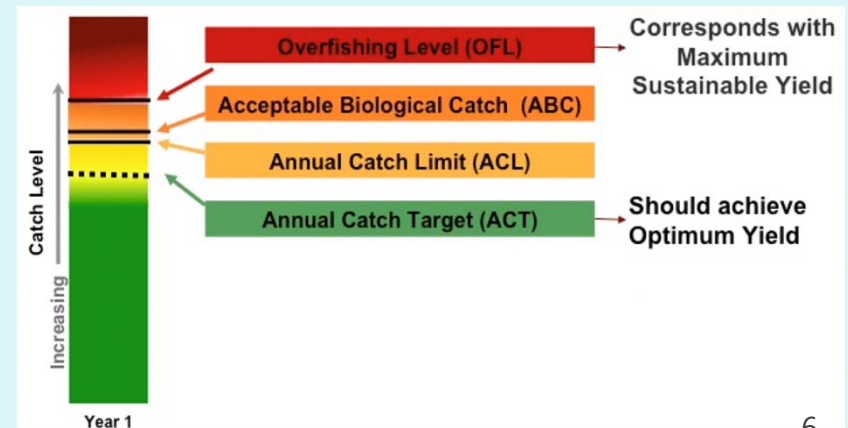
## Maximum Sustainable Yield Proxies

MSY is the largest, long-term average catch that can be taken from a stock or stock complex under prevailing ecological and environmental conditions, fishery technology characteristics, and the distribution of catch among fleets.

A proxy for MSY may be used when data are insufficient to estimate MSY directly.

- For example, the yield that will allow the stock to maintain a specified level of egg production or spawning potential ratio (SPR) is frequently used as an MSY proxy.

Lower MSY proxy values allow for higher yield. However, higher MSY proxy values are more resilient to natural variability before it is considered overfished.



# Action 1: Alternatives 1- 4

- **Alternative 1:** No Action. The MSY proxy for stocks or complexes that do not have an MSY proxy will remain undefined.
- **Preferred Alternative 2:** For stocks or complexes that do not have an MSY proxy, the MSY proxy is:
  - **Preferred Option 2b:** the yield when fishing at 30% spawning potential ratio (F30% SPR).
- **Preferred Alternative 3:** For goliath grouper, the MSY proxy is:
  - **Preferred Option 3b:** the yield when fishing at 40% spawning potential ratio (F40% SPR).
- **Preferred Alternative 4:** For red drum, the MSY proxy is:
  - **Preferred Option 4a:** the yield that provides for an escapement rate of juvenile fish to the spawning stock biomass (SSB) equivalent to 30% of those that would have escaped had there been no inshore fishery.



# MSY for Data Poor Stocks

Alternative	Complex	Stock
2	Shallow-water grouper	Scamp, <b>black*</b> , yellowmouth, yellowfin
2	Deep-water grouper	<b>Yellowedge</b> , warsaw, snowy groupers, speckled hind
2	Tilefishes	<b>Golden, blueline, goldface tilefish**</b>
2	Jacks	Lesser amberjack, almaco jack, banded rudderfish
2	Mid-water snapper	Wenchman, silk, blackfin, queen snapper
2		Cubera snapper
2		<b>Lane snapper***</b>
2		<b>Mutton snapper</b>
2		<b>Yellowtail snapper</b>
3		Goliath grouper
4		Red drum
5		All reef fish stocks, complexes, and red drum

Assessed stocks in **bold**, the remaining stocks are considered data poor

\*Black grouper assessment is outdated and provides limited management advice

\*\* Tilefish are assessed as a complex

\*\*\* Lane snapper was assessed using a data limited approach that did not produce an estimate of MSY or proxy



# Council Request

- At the November 2020 Council meeting: Council requested additional information about the pros/cons of using SPR proxies for data poor stocks in comparison to other potential approaches

# SSC and SEFSC recommendations

- **Preferred options 2b and 3b in Action 1** define all affected reef fish stocks using SPR based proxies

Pros	Cons
Consistent with management of other Gulf stocks	Requires a stock assessment for application in management
Strong scientific rationale for SPR-based proxies	Some stocks may not be assessed in the near future
Recommended by the SSC and the SEFSC	Concern that the proxy is not measurable

# MSY Based on Landings

- Early versions of the document considered alternatives that defined MSY based on annual landings
  - Some SSC members objected to using the term MSY or MSY proxy with data-limited stocks that used average catch landings over a 10-year period
  - Data poor stocks have not been updated/calibrated with MRIP-FES recreational landings and there is no stock assessment scheduled for these species to do so. Failed attempt at several species in SEDAR 49 except lane snapper
  - After numerous meetings, at the July 2019 meeting, the SSC acknowledged that assignments of an MSY proxy for these species at this stage would serve as a placeholder and could be modified when better data becomes available. The SSC made the following motion for Sub-Action 1.2: **Motion: The SSC recommends in Sub-Action 1.2, for Alternatives 2-8, an  $F_{MSY}$  proxy of 30% and for Alternative 9 an  $F_{MSY}$  proxy of 40%.**

# Landings-Based Approaches

- SSC and SEFSC have both reviewed the landings-based MSY approach. Their primary concerns:
  - Advice based on management could likely be sustainable, not maximum
  - Landings-based approach requires selection of reference years and criteria
  - Changes in historical data via calibration or routine updates could be problematic if used to determine MSY

# National Standard 1: Technical Guidance

- A sub-group is developing guidance on reference points. The CCC was updated on preliminary progress in May 2020 but the report is not yet available. Report will be made available to the SSC and Council when complete.
- Memo will create tiered advice for data-rich to data-limited stocks.
- Even data-limited guidance may require more information than is available for many Gulf stocks
- An approach may be setting MSY or MSY's now and considering revised guidance in a future amendment for applicable data-rich or data-limited stocks

# Rationale for Current Preferred Alternatives

- MSA and National Standard 1 guidelines require status determination criteria for each managed stock.
- The current preferred alternatives would satisfy this requirement for Gulf stocks.
- SDCs can be modified at any time by the Council based on new information or management objectives.
- The SSC and SEFSC concur with current preferred alternatives based on available data and information
- Committee guidance is requested on next steps for this action.

# Questions?