

# **Gulf of Mexico Grey Triggerfish Interim Stock Assessment**

SSC's Summary Presentation  
to  
Gulf of Mexico Fishery Management  
Council

**October 26-29, 2020**



# **Gulf of Mexico Grey Triggerfish Interim Analysis (IA) Stock Assessment**

**IAs are conducted between stock assessments, and use a representative index of abundance (preferably fishery-independent, but can use a CPUE index) against the ABC to estimate stock condition and project future catch advice.**

**The last accepted assessment for gray triggerfish was SEDAR 43 (2015); the stock is not overfished or experiencing overfishing, but is in a rebuilding plan which aims to rebuild the stock by 2025. Currently, established catch limits are defined based on results from the SEDAR 9 Update and were implemented in 2012**



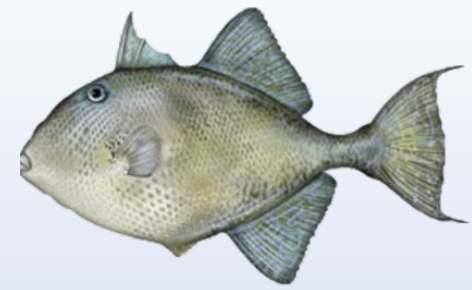
# **Gulf of Mexico Grey Triggerfish Interim Analysis (IA) Stock Assessment**

**Gray triggerfish has a sector allocation of 79% recreational and 21% commercial. The Council decided not to implement the rebuilding ABCs from SEDAR 43 (2015) in Reef Fish Amendment 43, which was implemented in January 2018. The Council has maintained the ABC at 305,300 lbs ww.**

**The recreational sector's ACL is 241,200 lbs ww, and ACT is 217,100 lbs ww in MRIP-CHTS units, and has not been calibrated to MRIP-FES for quota monitoring purposes.**



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**The basic premise of this IA is to derive an index that reflects the relative abundance of gray triggerfish over time.**

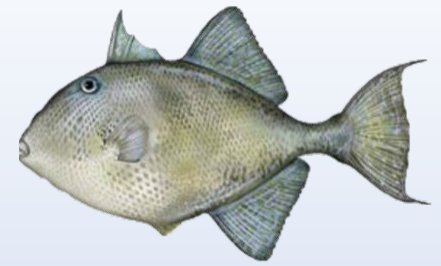
**Then establish a reference period of that index which relates to an a level of sustainable catch.**

**Compare the current index to the reference years (I ratio)**

**Adjust catch by the I ratio ... if I ratio  $> 0$  then recommended catch (ABC) is greater than target catch during the reference period (with a buffer for uncertainty)**

**Decisions were informed by preliminary MSE (SSMSE) results and index residual analysis**

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**For this interim analysis, the combined video survey (which includes the NMFS Pascagoula Lab, NMFS Panama City Lab, and the Fish and Wildlife Research Institute video surveys) was used as the representative index. This fishery-independent index covers the area and sizes of gray triggerfish selected by the fisheries.**

**There is general agreement that the stock hit its low point in terms of SSB during the late 2000s, and that SSB has been increasing since, especially in the eastern Gulf. As such, removals can likely be increased without jeopardizing the rebuilding plan for the stock.**

# Gulf of Mexico Grey Triggerfish Interim Stock Assessment

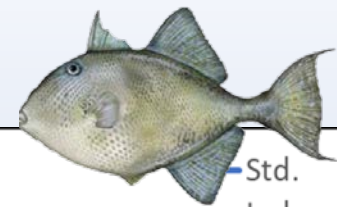


Interim assessment

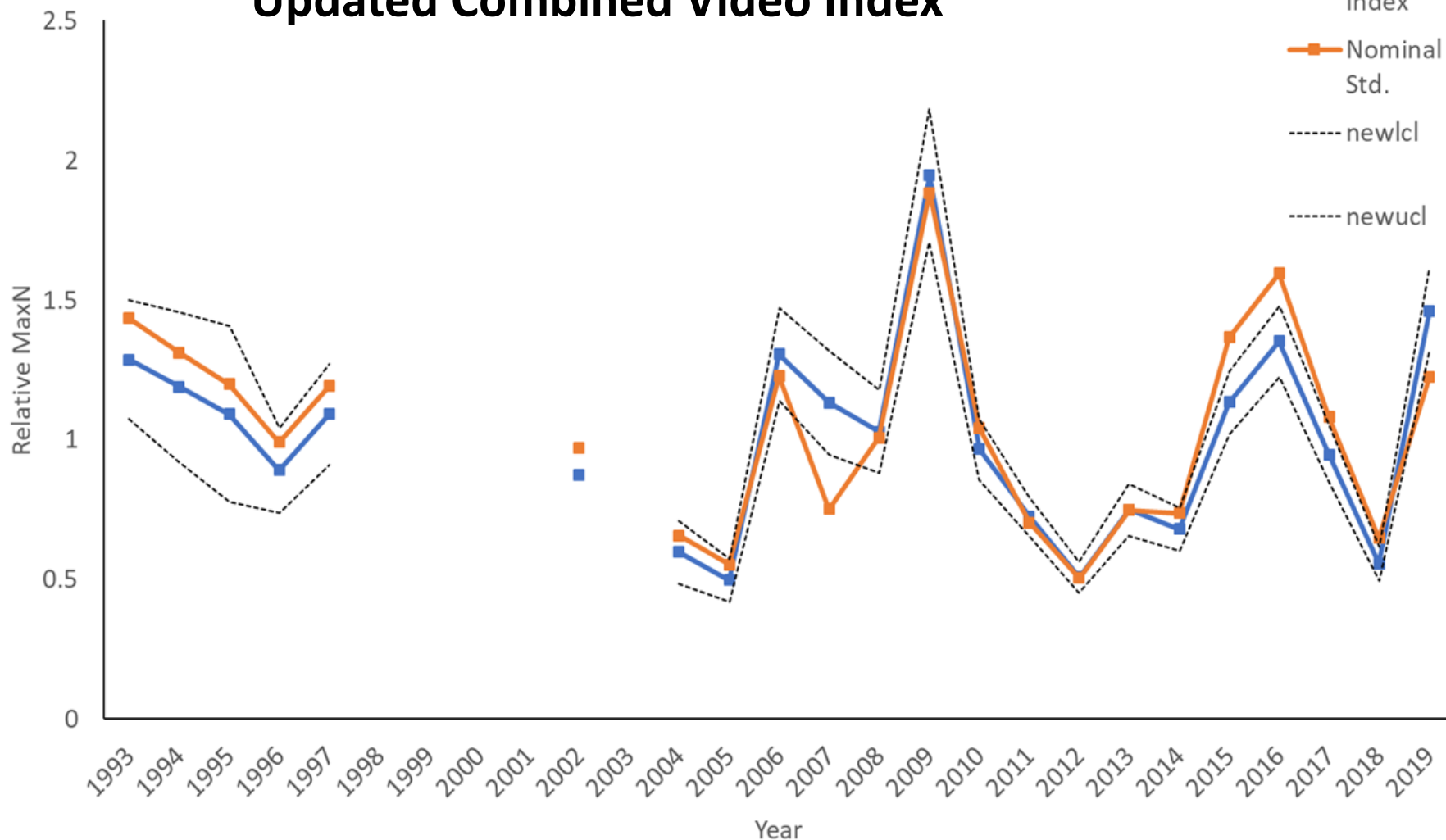
Adjust current ABC of 305,300

<b>Year</b>	<b>Assessment</b>	<b>OFL</b>	<b>ABC</b>
2012	SEDAR 9 -update	401,600	305,300
2013	SEDAR 9 -update	429,300	348,000
2014	SEDAR 9 -update	449,300	383,900
2015	SEDAR 9 -update	463,600	412,400
2016	SEDAR 9 -update	473,400	433,900
2017	SEDAR43	1,309,000	—
2018	SEDAR 43	1,287,000	—
2019	SEDAR 43	1,218,000	—
2020	SEDAR 43	1,187,000	—

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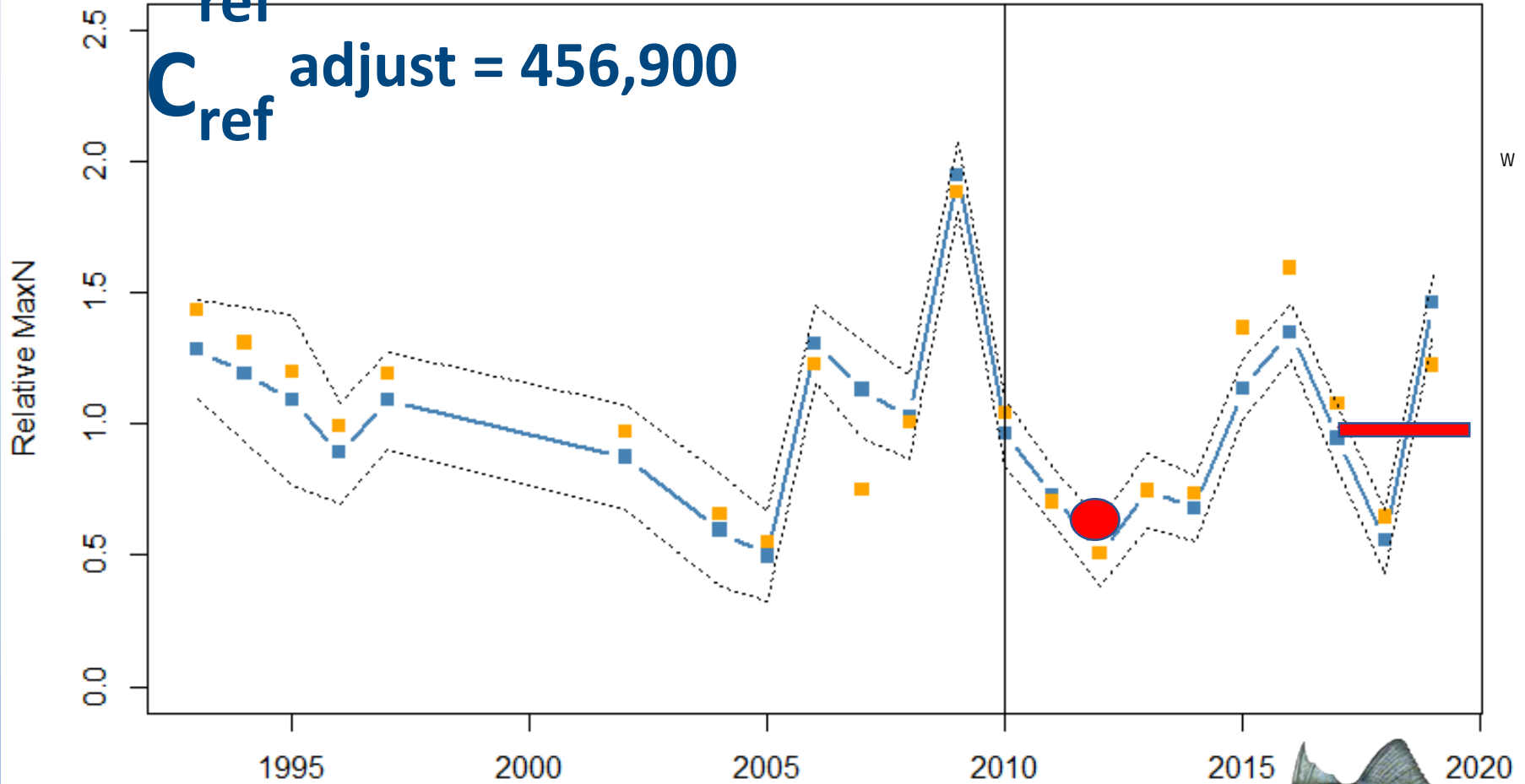
## Updated Combined Video Index



$I_{ref}$  = ● ; Recent avg.  $I$  = ■ ;  $I_{ratio} = 1.496$

$C_{ref}$  = 305,300; terminal data 2010

$C_{ref}^{adjust}$  = 456,900



# Gulf of Mexico Grey Triggerfish Interim Stock Assessment





# Gulf of Mexico Grey Triggerfish

## Interim Stock Assessment

### Catch Advice Summary

New ABC based on Interim Assessment = 456,900 lbs

OFL (1.2 mp) remains unchanged but not limiting

Reference Catch	Reference Value	Iratio	2021 Value	Commercial 2021 ABC (0.21)	Recreational 2021 ABC (0.79)
Cref status quo	305,300	1	305,300	64,100	241,200
Cref adjust	305,300	1.496	456,900	95,900	361,000



# Gulf of Mexico Grey Triggerfish

## Interim Stock Assessment

The SSC discussed the benefits and future directions for the IA process. The SSC appreciated the ability to review catch advice annually or biannually since several years often pass between stock assessments. The SEFSC is interested in automating the IA process in the future; however, recent IAs do require manual index selection, which can take some time to conduct. Staff notified the SSC that gray triggerfish was not on the SEDAR schedule until 2023 as a research track assessment, and management results were not expected to be available until 2025. Council staff reviewed the landings history by sector, which show that the commercial sector is usually under its annual catch limit (ACL), while the recreational sector has exceeded its ACL every year since 2015.

**Motion: The SSC finds the gray triggerfish interim analysis is suitable for management, and recommends an ABC of 456,900 lbs ww (MRIP-CHTS) for 2021-2023 and an interim analysis for 2024 forward be conducted at that time.**

