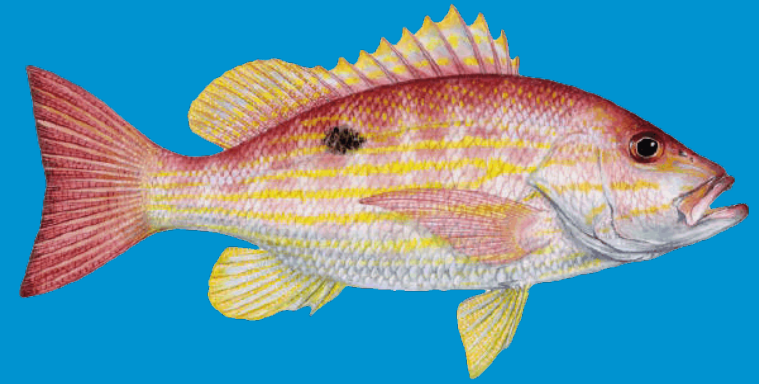


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U.S. Gulf of Mexico Lane Snapper

2023 Interim Analysis

Gulf of Mexico Fishery Management Council
Scientific and Statistical Committee

September 2023

Background

- March 2020: Updated OFL and ABC with landings only
- Jan 2020: Updated OFL/ABC with total removals
- OFL/ABC updated using Itarget Data Limited Method (DLM)
 - Initially described and presented to GMFMC Sept 2019
- Lane Snapper last assessed SEDAR 49 – Gulf of Mexico Data Limited Stock Evaluation – Terminal Year 2014



Approach

- Data Limited Method 'Itarget_0.5_0.7_1.0'

- TAC calculated for lane snapper as:
if $I_y^{recent} < 0.7 \times I^{ave}$, $w \times C^{ave} \left[\frac{I_y^{recent}}{0.7 \times I^{ave}} \right]^2$
if $I_y^{recent} \geq 0.7 \times I^{ave}$, $C^{ave} \left[w + (1 - w) \frac{(I_y^{recent} - 0.7 \times I^{ave})}{(I^{target} - 0.7 \times I^{ave})} \right]$

- Where:

- C^{ave} = average catch over reference time series (1999-2008)
- I^{ave} = average index over reference time series (1999-2008)
- I^{recent} = average index over 5 most recent years (2018-2022)
- $I^{target} = I^{ave} \times I^{multi}$
 - “ I^{multi} ” scalar I^{ave} was set as 1.0 for SEDAR 49 evaluations based on the assumption that the stock was near MSY during the reference period
- $w = 0.5$ (smoothing parameter that informs the catch advice when $I^{recent} = 0.7 I^{ave}$)

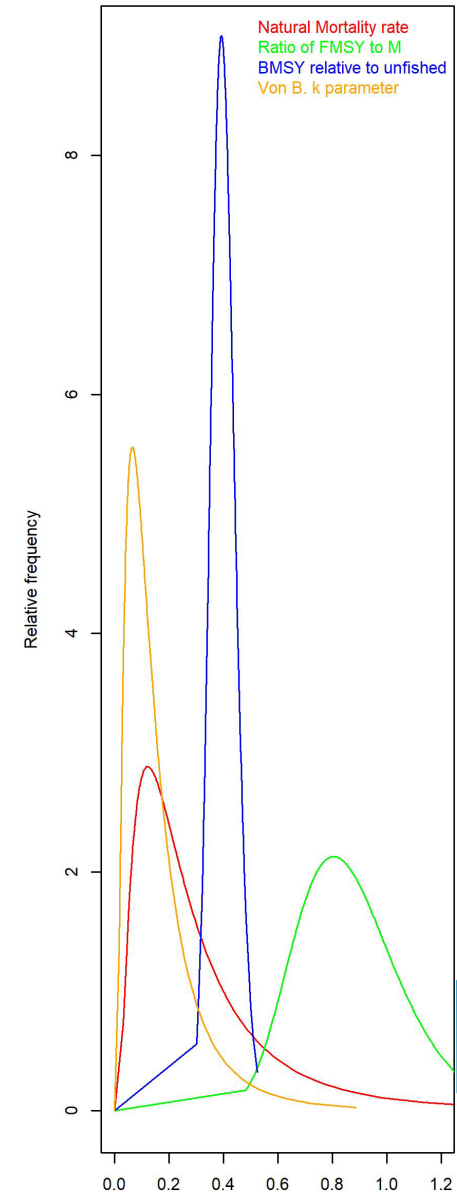
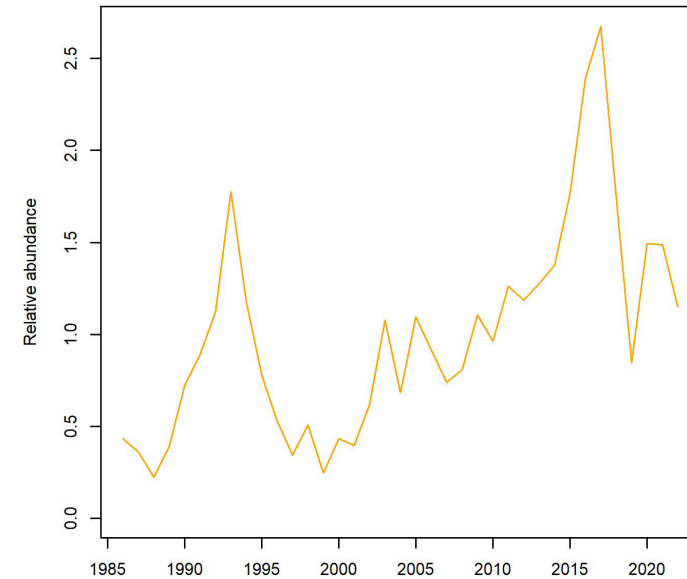
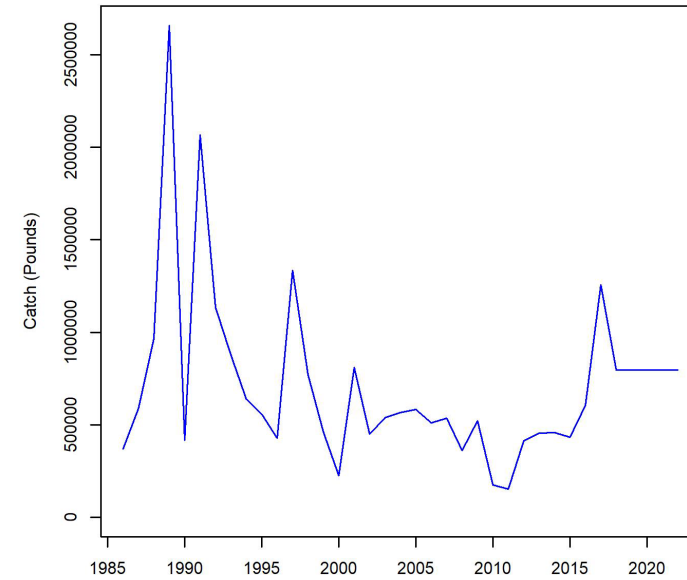
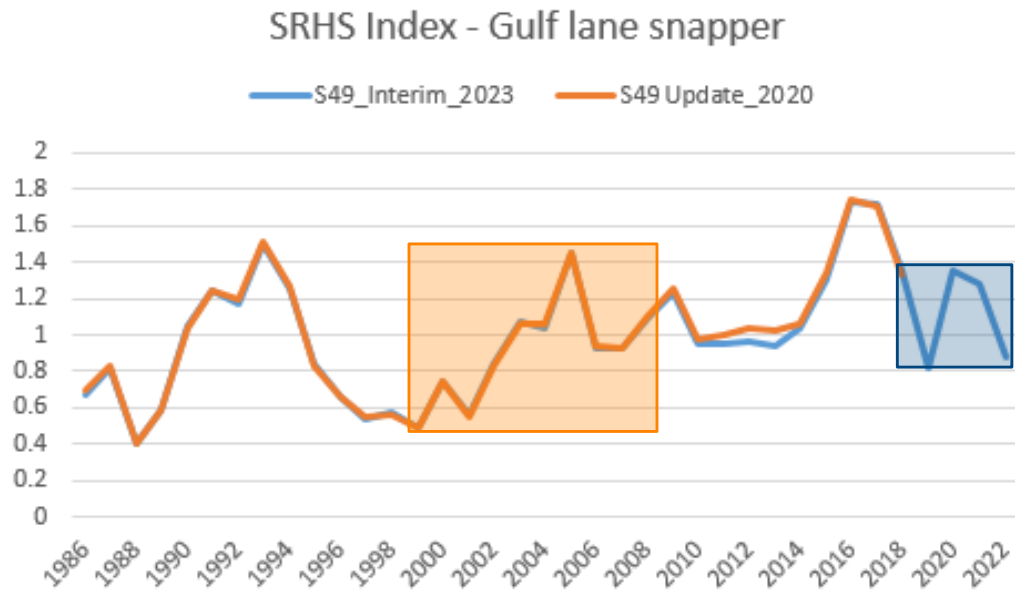
Germont and Butterworth (2014)



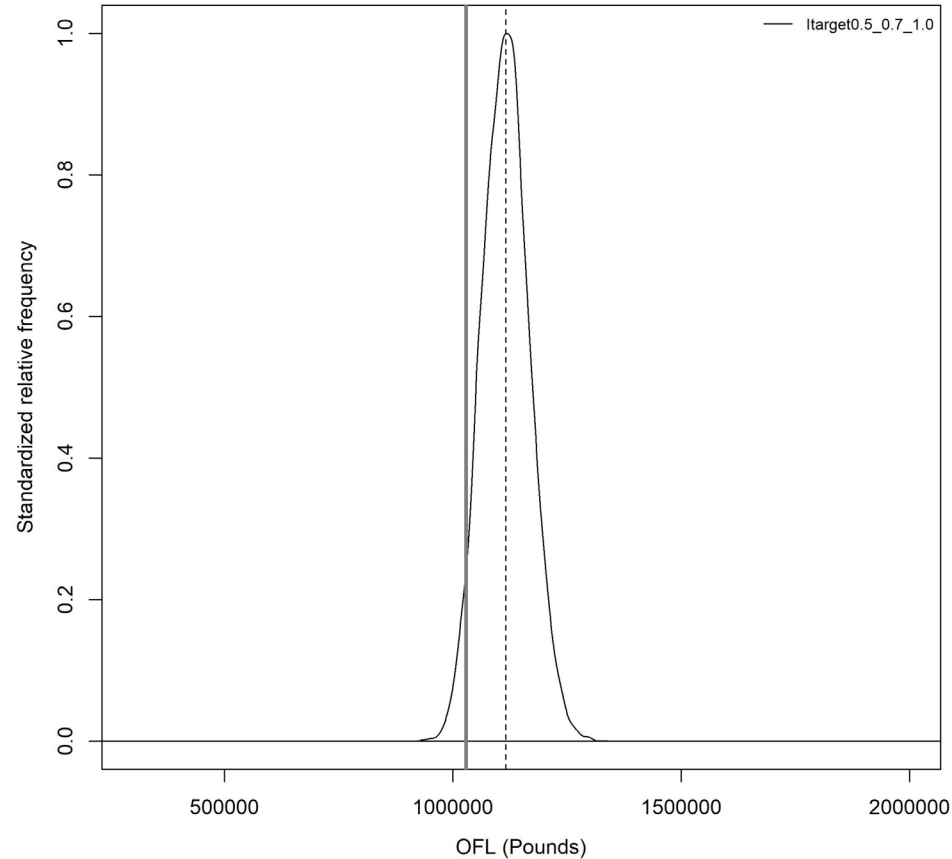
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Approach

- Recommended index from SEDAR49 Headboat CPUE
- The Headboat CPUE Abundance Index updated from last IA of 2018, terminal year for index now 2022



OFL Distribution



	ABC		OFL	SD	SE	CV
	30%	40%				
2023	1,088,873	1,102,732	1,116,331	51,819	518	0.046
2020	1,028,973	1,041,873	1,053,834	50,102	501	0.046

* Following the March 2017 GMFMC SSC determination that OFL and ABC should be defined as the 50th and 30th percentiles of the OFL distribution

Vertical gray line previous IA OFL

Some caveats

- Headboat index overall trend very flat
- Use of a fishery-dependent index alone may not track the overall population trend.

ACL Monitoring

Species Complex	Season	Sector	Sector Landings (lb)*	Total Landings (lb)*	ACL(lb)*	ACL%	Dataset	Current Status
2022 Lane snapper		Recreational	1,081,216	1,097,396	1,028,973	106.6	MRIP-FES	
		Commercial	16,180				N/A	
2023 Lane snapper		Recreational	430,527	449,926	1,028,973	43.7	FES	OPEN
		Commercial	19,399				N/A	



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