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SEFSC

Gulf Lane Snapper

2025 Interim Analysis

Gulf Fishery Management Council

Scientific and Statistical Committee

January 22nd, 2026

Background

Timeline

- OFL/ABC updated using I_{target} Data Limited Method (DLM)
  - Initially described and presented to GMFMC Sept 2019
- September 2023: Updated OFL and ABC with I_{target} Data Limited Method using SRHS index
- March 2020: Updated OFL and ABC with landings only
- Jan 2020: Updated OFL/ABC with total removals
- 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:

$$\text{if } I_y^{recent} < 0.7 \text{ x } I^{ave}, \quad \boldsymbol{w} \; x \; C^{ave} \left[\frac{I_y^{recent}}{0.7 \text{ x } I^{ave}}\right]^2$$

$$\text{if } I_y^{recent} \geq 0.7 \text{ x } I^{ave}, \; C^{ave} \left[\boldsymbol{w} + (1 - \mathbf{w}) \frac{(I_y^{recent} - 0.7 \text{ x } I^{ave})}{(I^{target} - 0.7 \text{ x } I^{ave})}\right]$$

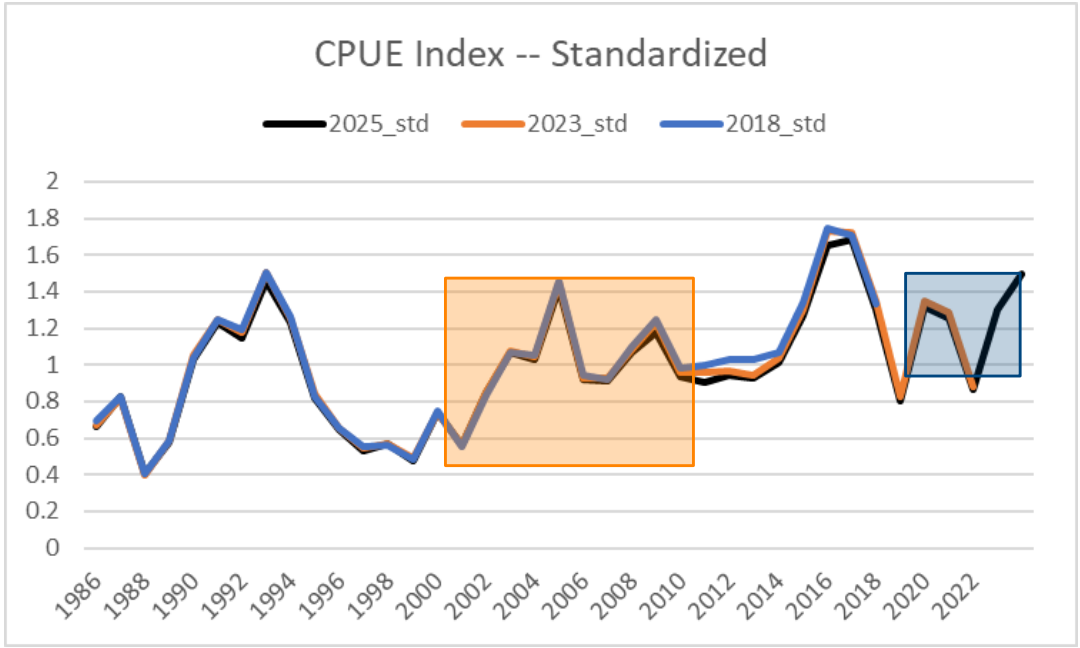
Germont and Butterworth (2014)

- 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 (2020-2024)
  - I^{target} = I^{ave} x 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})

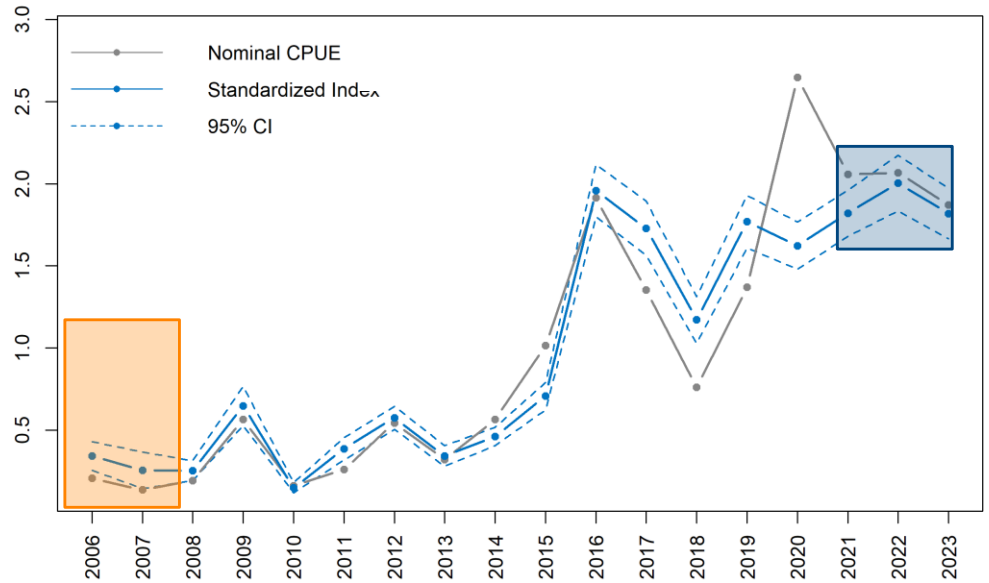
Approach

- Recommended index from SEDAR49: Headboat CPUE (G-FISHER not available)
- The Headboat CPUE Abundance Index updated from last IA of 2022, terminal year for index now 2024
- Questions raised about the suitability of the headboat index, especially compared to the G-FISHER index
- G-FISHER now available for use with Lane Snapper from 2006-2023

Headboat



G-FISHER



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Headboat vs. G-FISHER for the interim analysis

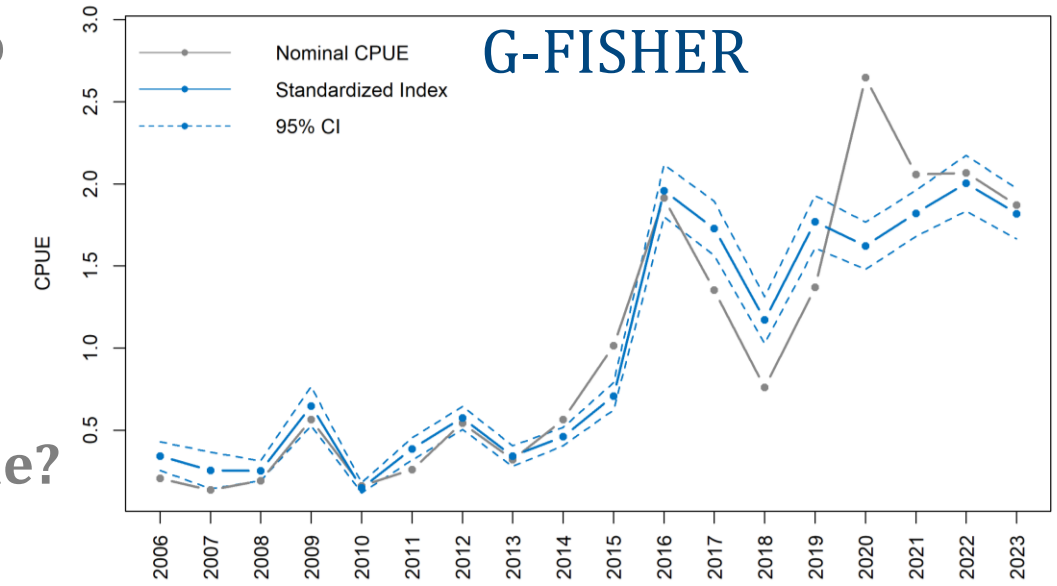
- The SRHS index is derived from fishery-dependent data and is susceptible to other factors (e.g. changing fisher behavior multi-species management) which may affect how it reflects changes in stock abundance
- Additionally, during SRHS index development, different model configurations resulted in fairly different representations of stock abundance (e.g., application of standard species filters, estimation of Stephens-MacCall coefficients by region, etc.)
- A fishery-independent index is not subject to changing fisher behavior and the survey design controls for the influence of other factors
- G-FISHER is a well-designed, fishery-independent survey that captures enough Lane snapper to produce an index of abundance with relatively low CVs without the need for extensive model assumptions

Issues

1. G-FISHER index for Lane Snapper 2006-2023
   - Does not overlap with recommended reference frame (1999-2008) for IA approach
   - Both catches and index reference frame need to match up
2. Estimation of landings changed since S49 for reference fleet (FLW Private mode)

Reference frame needs to be updated to cover years when the index and catch data overlap and prior to changing regulations.

Which years to use as reference frame?



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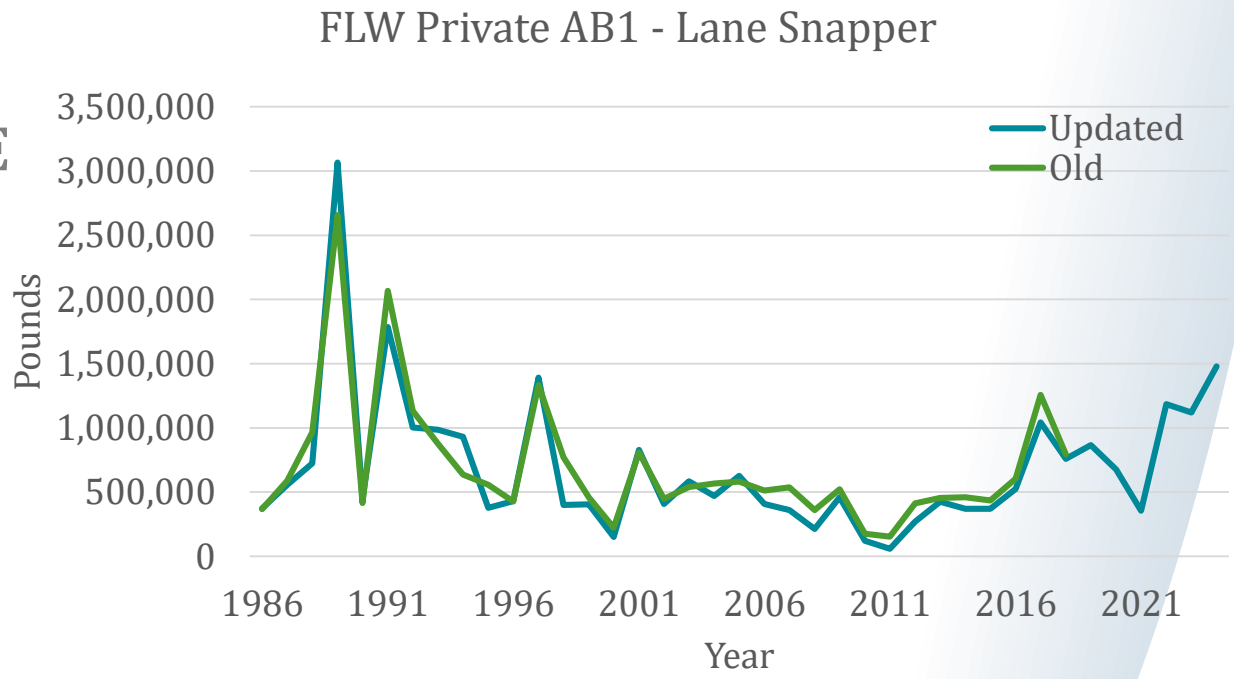
Proposed Updated Reference Frames

- Same approach as S49 (10 yr reference frame): 1999-2008 chosen as period of relatively stable catches

- ~~1999-2008 avg = 445,138 lb~~
  - Does not overlap with available CPUE
- 2006-2015 avg = 305,496 lb
  - Period of relative catch stability
- 2019-2023 avg = 840,566 lb
  - Approach from DLM paper
- 2009-2018 avg = 440,209 lb
  - Similar average catches as initial time period (1999-2008)



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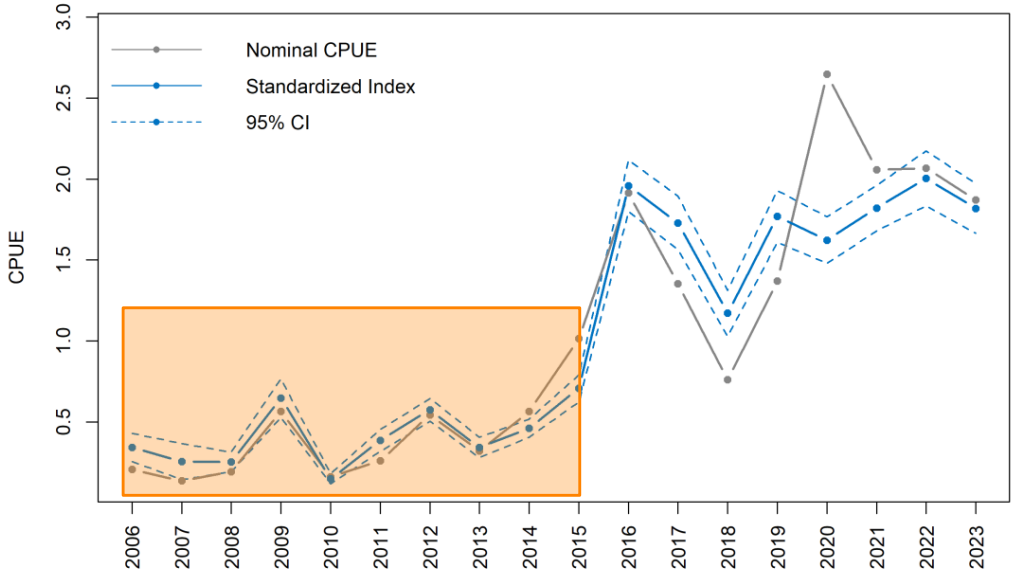
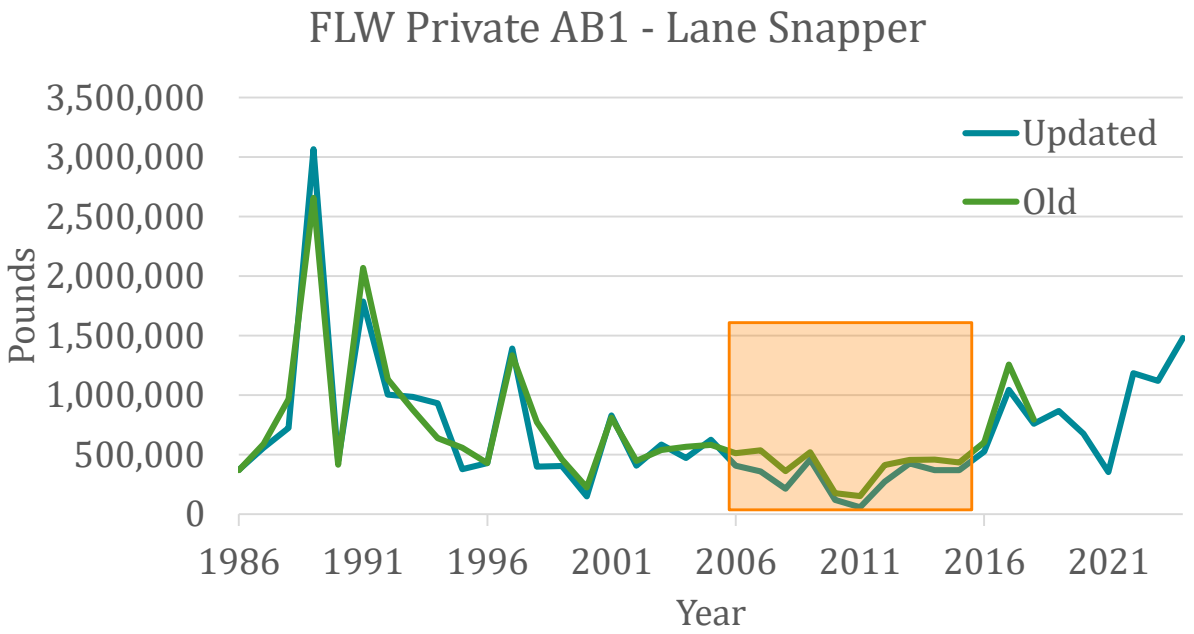
OFL Distribution – G-FISHER

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

G-FISHER





Reference frame: **2006-2015**

	ABC		OFL	SD	SE	CV
	30%	40%	*			
2025	1,982,629	2,007,484	2,030,530	92,965	930	0.046
2023	1,088,873	1,102,732	1,116,331	51,819	518	0.046

Index relatively flat in recent years, does not signify a large increase in abundance

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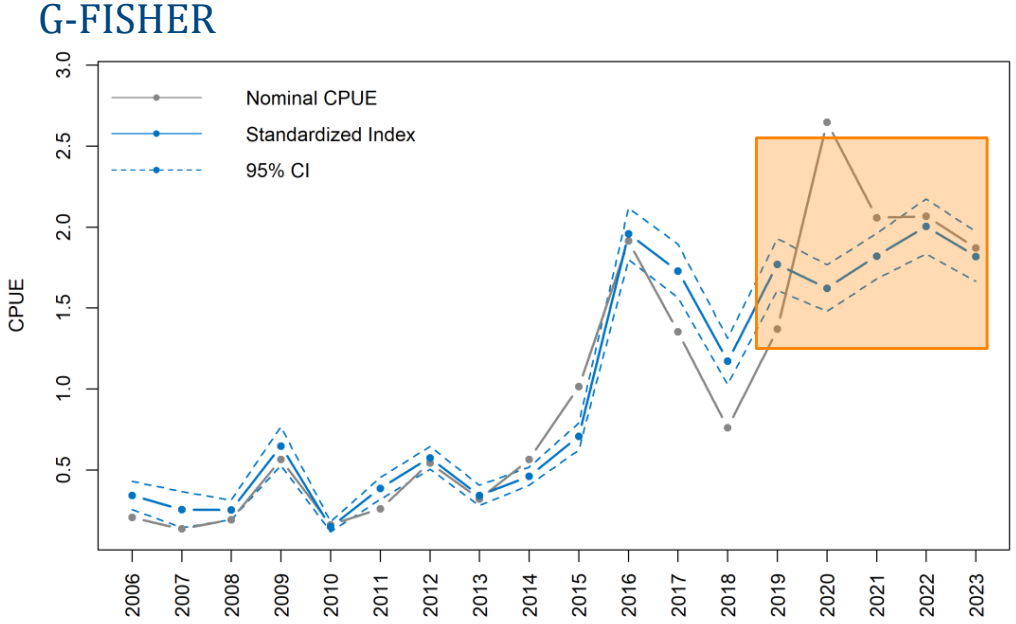

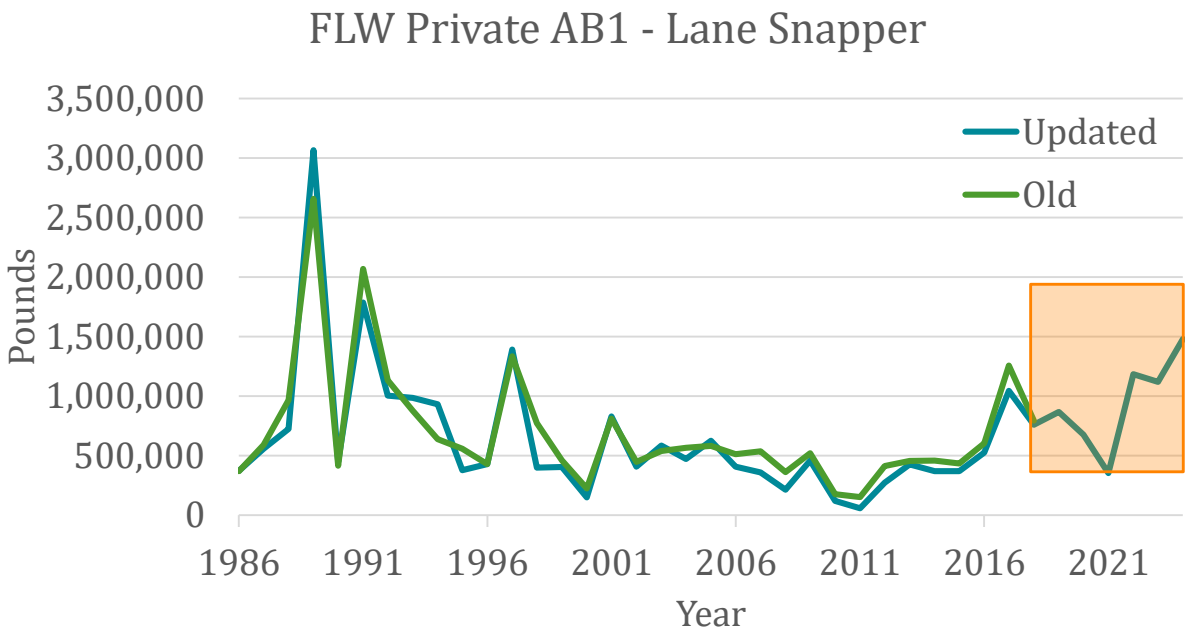

Reference frame: **2019-2023**

	ABC		OFL	SD	SE	CV
	30%	40%	*			
2025	823,729	835,281	846,008	43,327	433	0.051
2023	1,088,873	1,102,732	1,116,331	51,819	518	0.046

Index: recent years relatively flat

Catches: recent years highly variable

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OFL Distribution – G-FISHER

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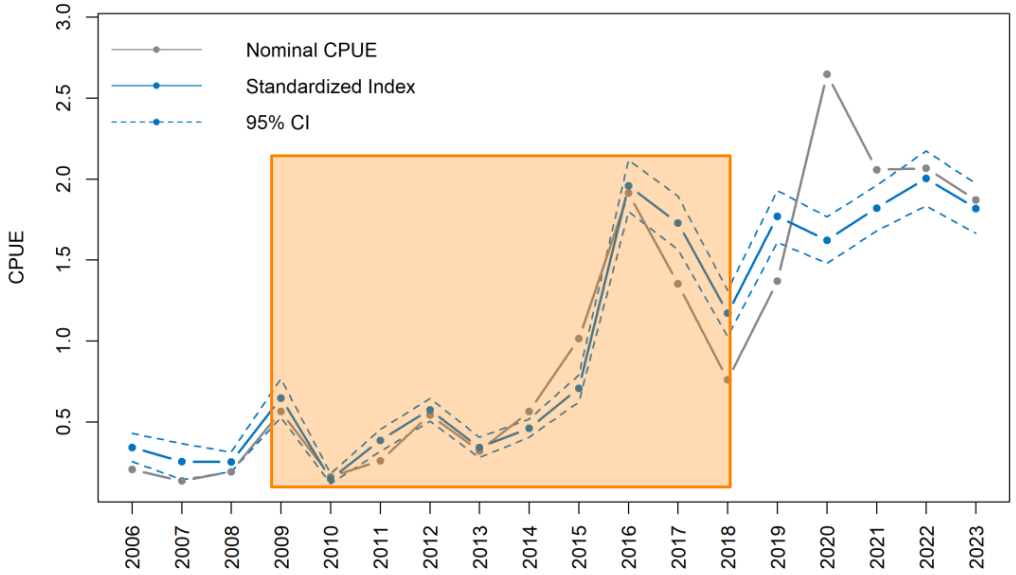
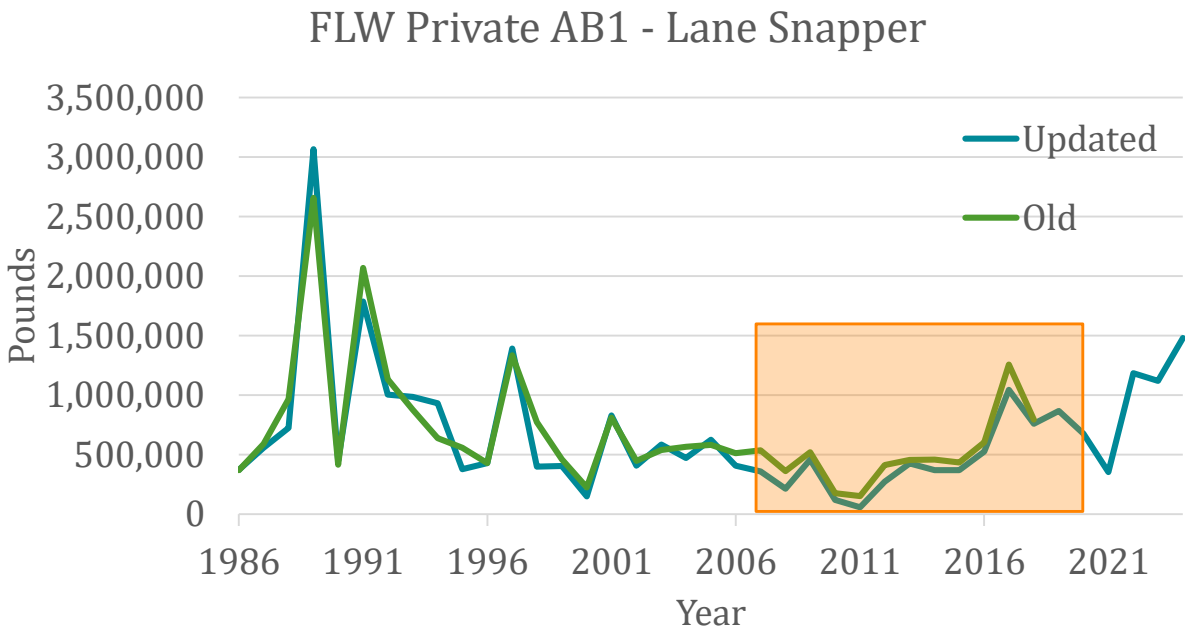
G-FISHER





Reference frame: **2009-2018**

	ABC		OFL	SD	SE	CV
	30%	40%	*			
2025	1,304,917	1,321,276	1,336,445	61,187	611	0.046
2023	1,088,873	1,102,732	1,116,331	51,819	518	0.046

Index: Longer time period helps to account for annual variability

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Overview

Reference Frame	SRHS	G-FISHER
1999-2008	822,418	-
2006-2015	426,586	2,030,530
2019-2023	-	846,008
2009-2018	-	1,336,445
Current OFL	**1,116,331**	-

Recommendations:

- Use G-FISHER index
- Longer time series better accounts for annual variability and better represents fishery through time

2025 Preliminary Inseason Landings for Species with Stock Annual Catch Limits (ACL)

Date 2025 commercial landings through: 12/29/2025.

Date commercial IFQ landings available through: 12/29/2025

Date recreational landings available: Recreation landings from January 1 through August 31, 2025. LA Creel landings from January 1 through November 2, 2025. No Texas landings are available for 2025.

Lane snapper		Recreational	804,887	831,605	1,088,873	76.4	FES	OPEN
		Commercial	26,718				N/A	

Lane Snapper

Year	Fishing Year	Recreational Landings	Commercial Landings	Total Landings	Units	ACL	ACL %	Closure Date	Rec Data Source
2024		1,340,467	30,727	1,371,194		1,088,873	125.9		MRIP-FES
2023		1,113,551	28,581	1,142,132		1,028,973	111.0		MRIP-FES
2022		1,113,580	16,180	1,129,760		1,028,973	109.8		MRIP-FES

- **Recommended OFL: 1,336,445 lb**

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