



## Recreational Decision Tool for Gulf of Mexico Greater Amberjack

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# Rationale

Gulf of Mexico Greater amberjack stock is experiencing overfishing and is overfished (SEDAR 33 Update).

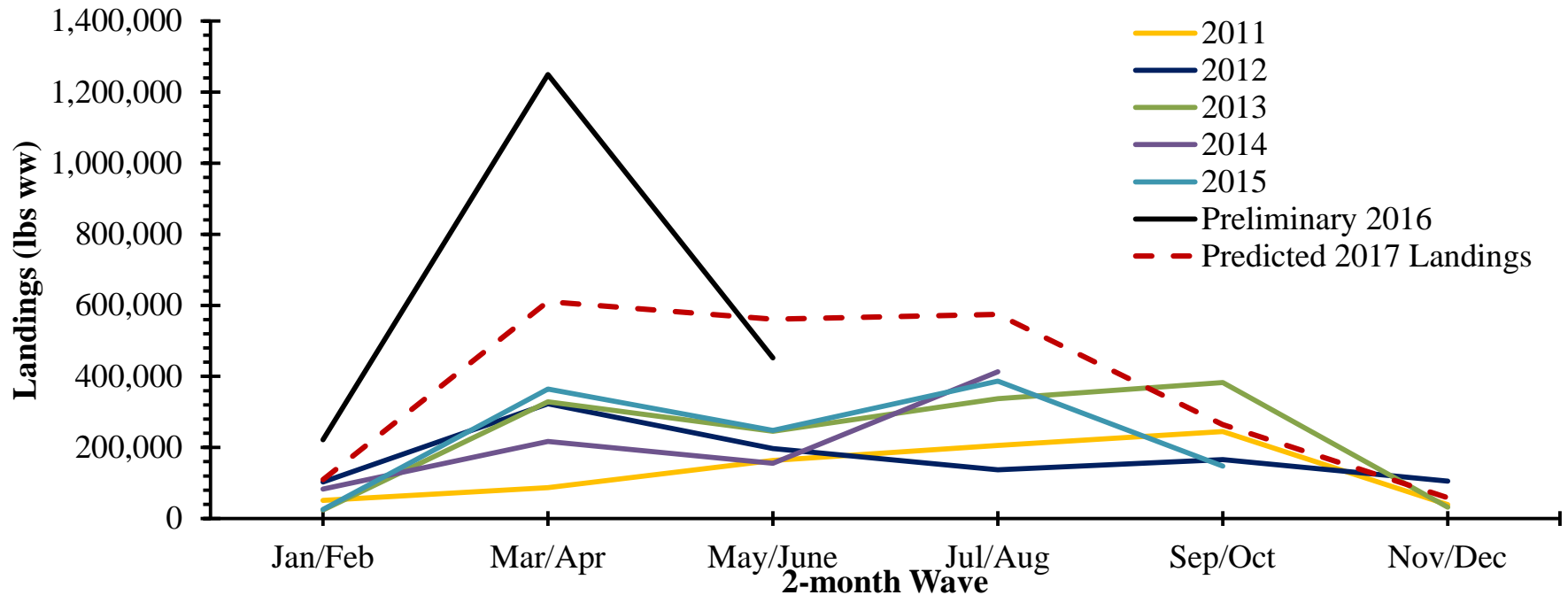
Additional management measures are needed to rebuild the stock

Framework Action is proposing a range of ACLs, ACTs, and changes to seasonal closures and size limits.

# Predicting 2017 Landings

## Two-Month Wave

	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
Details	Average landings by wave from 2014-2016.		Determined daily catch rate for May from average of 2014-2016 landings. Applied catch rate to number of days in June. Pooled average landings from May and June.	Determined daily catch rate for August from average of 2012, 2013, and 2015 landings. Applied catch rate to number of days in July. Pooled average landings from July and August.	Average landings by wave from 2011-2013.	



\*All landings before 2016 were modified to account for the increased size limit from 30 to 34 inches fork length



## Decision Tool

Recreational decision tool was developed to allow the Council to evaluate reductions in harvest associated with seasonal closures

### Caveats for Analyses

Decision models do not account for:

- Effort shifting due to closed seasons
- Changes in averages size during stock rebuilding
- Changes in fishing effort



## Landings Equation

$$\left( \begin{array}{c} \textit{Projected} \\ \textit{Landings} \end{array} \right)_{\textit{Mode,Month}} = \left( \begin{array}{c} \textit{2017 Predicted} \\ \textit{Landings} \end{array} \right) * (OM)$$

*Mode* = Charter, Private, and Headboat

*Month* = January through December

*OM* = percent of the month open to fishing



## Discards and Total Removals

Example:

Predicted Landings = 400,000 lbs

Seasonal closure (reduced harvest) results in revised Predicted Landings of 350,000 lbs, therefore 50,000 pounds discarded

50,000 pounds/average weight = Numbers of Fish Discarded

Discard mortality rate = 20% (SEDAR 33 Update)

Dead Discards = (Numbers of Fish Discarded) \* 20%

Total Removals = (Dead Discards) + (Number of Fish Landed)



Show Decision Tool



**Questions?**

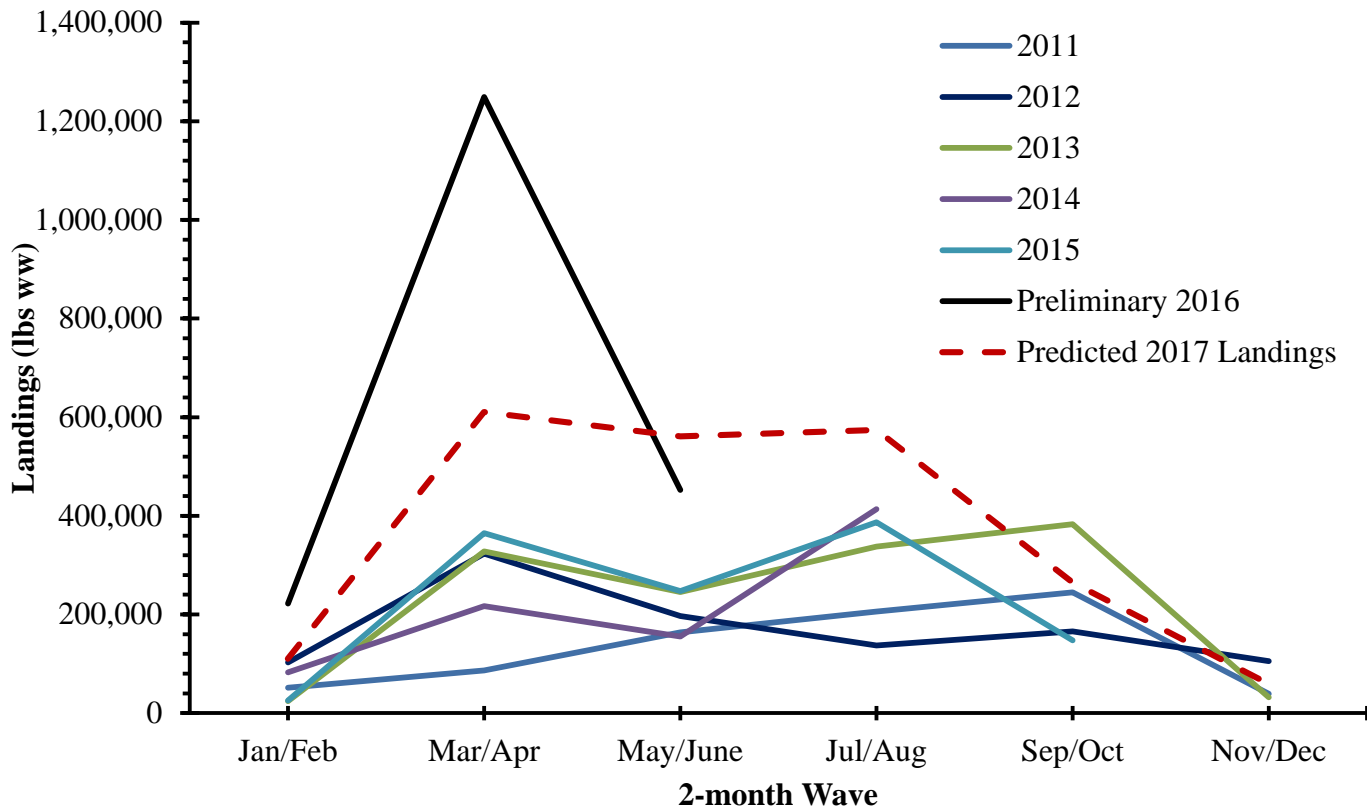


# Information on Biology

- Spawning season January to June with peak spawning March to May (Debra Murie, current MARFIN grant research)



Mode	Percentage of 2016 Preliminary Recreational Landings
Charter	37%
Headboat	3%
Private	60%





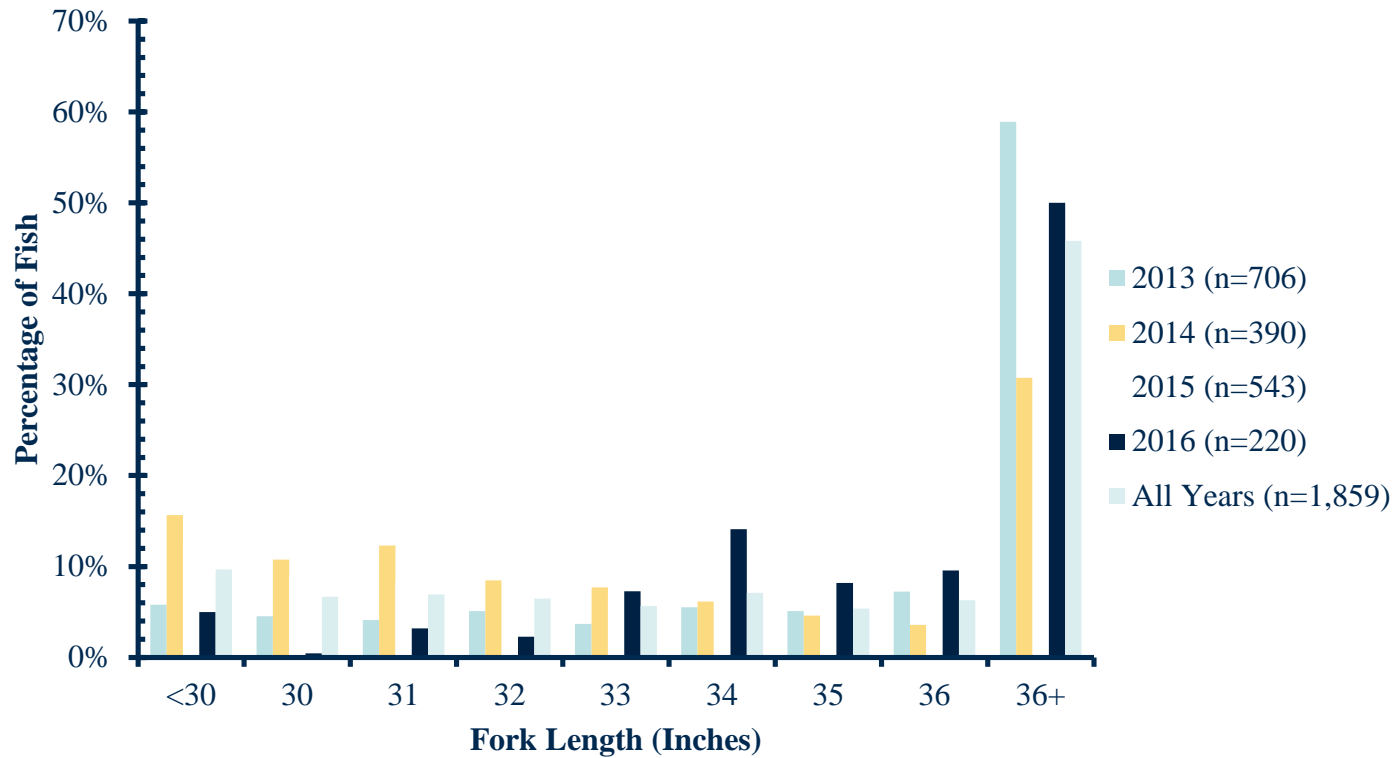
## Gulf MRIP sampling in 2016

P.S.E. of 2016 landings is 20.4

421 MRIP intercepts in 2016

However, only 61 greater amberjack lengths were recorded by MRIP

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## Number of samples of greater amberjack where length data was collected

FORK LENGTH	YEAR DATA COLLECTED			
	2013	2014	2015	2016
HB	323	123	260	133
LA	225	70	83	26
MRIP	137	169	182	61
TPWD	21	28	18	
TOTAL	706	390	543	220