

# Red Snapper Federal For-Hire Split Season Alternatives



NOAA Fisheries Service  
Southeast Regional Office

**GULF COUNCIL  
MEETING  
AUGUST 2016**



# Split Season Suggestions from Gulf Council

- *Option 1:* Open federal for-hire red snapper season Apr 20 – May 31, reopen Sept 1 until ACT projected to be exceeded.
- *Option 2:* Open federal for-hire red snapper season June 1 – June 30, reopen Oct 1 until ACT projected to be exceeded.



# Analytical Challenges

- No recent federal for-hire catch rate data outside of June – July for entire Gulf region
- Is there a seasonal dynamic to red snapper catches? If so, is it due to red snapper stock movement or catchability? Or, is it due to differences in fishing effort? Would fishermen compensate for a change in the season start date and exert more effort in open months?
- **LOTS of uncertainty**



# Expectations

- June catch rates are likely high because weather conditions are nice, school is out, little conflict from other activities
- April-May catch rates may be high although school is in, because weather may be similar to June, and high catch rates are anticipated at start of season
- Sept-Oct catch rates may be lower as school is in, anglers may have scheduling conflicts (e.g., football, hunting, etc.), and the stock will have been fished by several weeks already

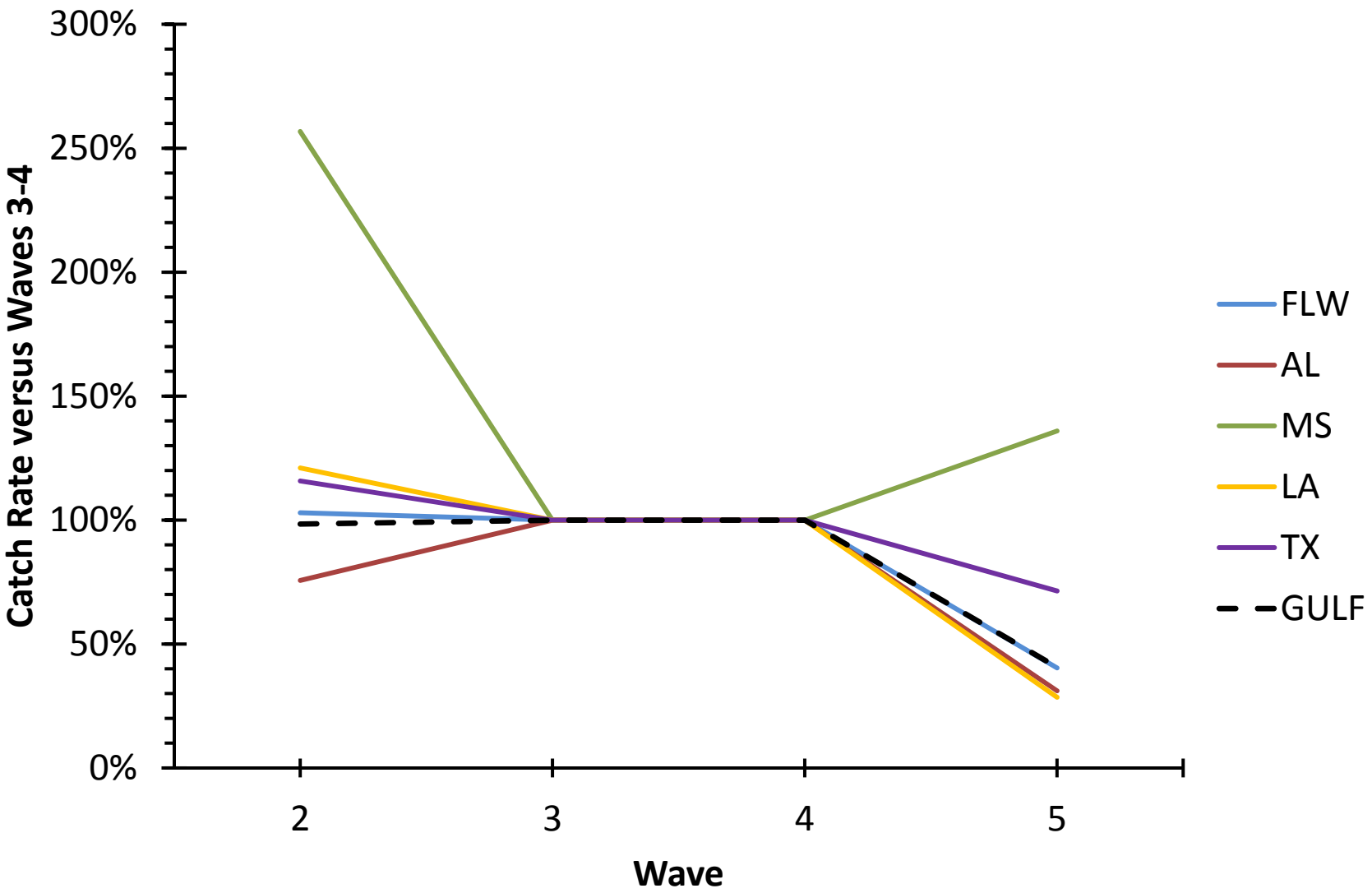


# 7 Different Analytical Approaches

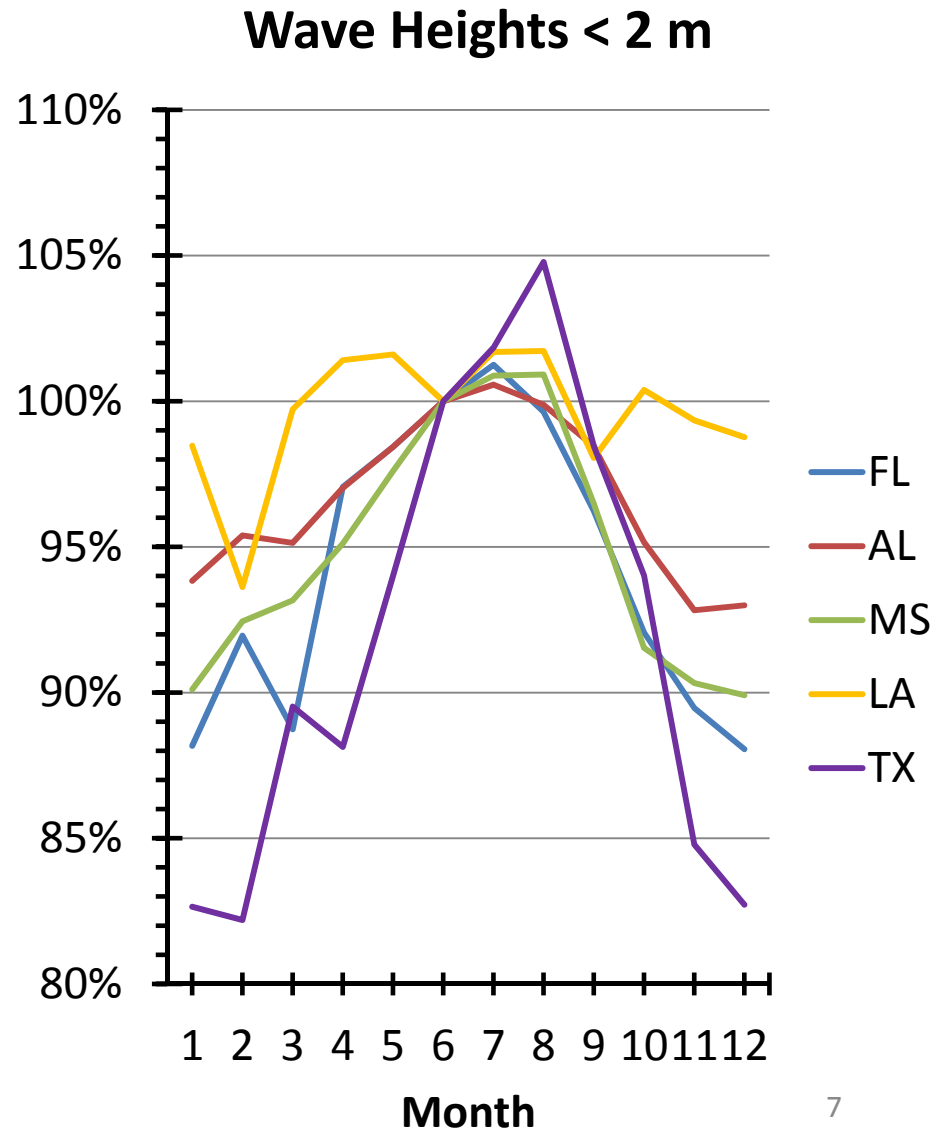
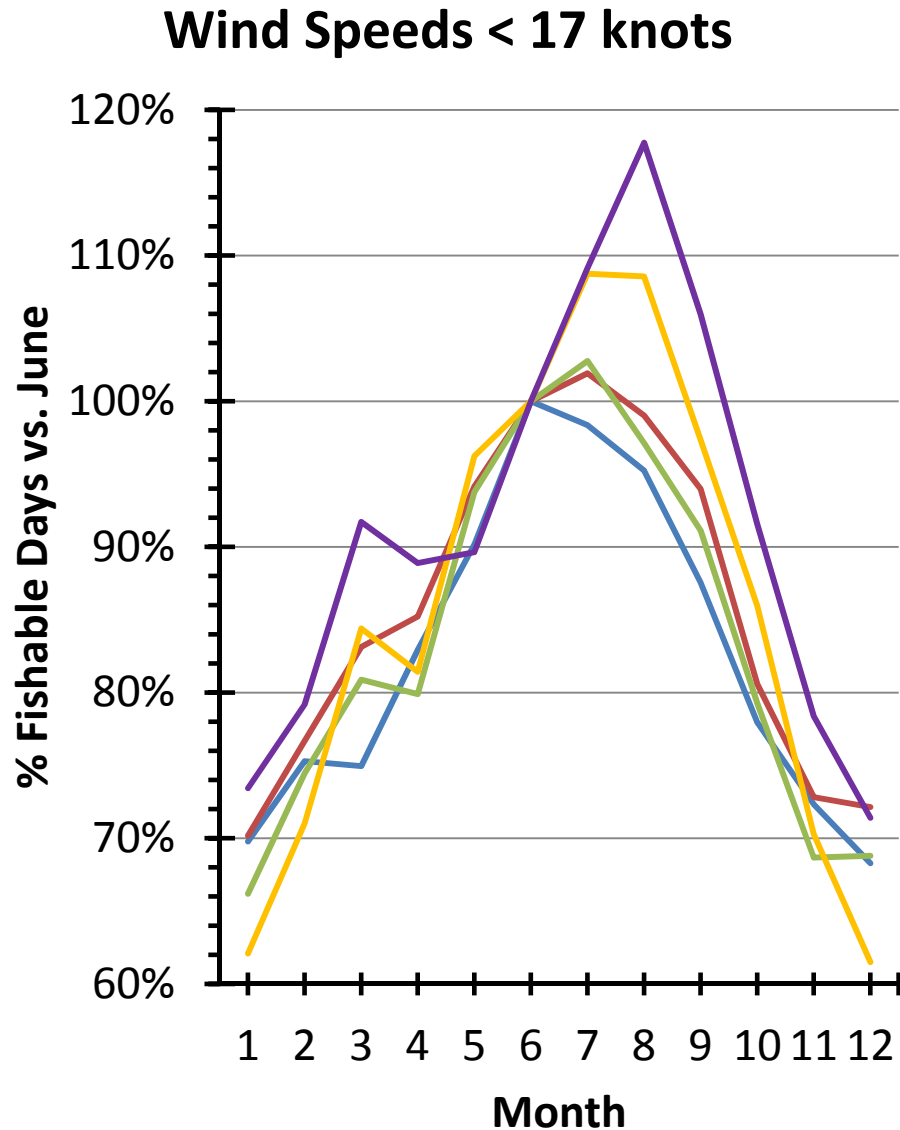
- 1. Unscaled:** Assume that catch rates do not vary by month, apply the mean of the 2014-2015 daily catch rates projected by SERO for the 2016 season
- 2. Historic (by state):** Scale monthly catch rates based on mean 2004-2007 federal season (Apr 15-Oct 31) observed daily catch rates for each individual state
- 3. Historic (Gulf):** Scale monthly catch rates based on mean 2004-2007 federal season (Apr 15-Oct 31) observed daily catch rates for entire Gulf of Mexico combined
- 4. & 6. Wind Speed:** Scale monthly catch rates based on mean (2007-2015) ratio of “fishable days” for Beaufort scale < 5 (*wind speed* < 17 *knots*) and Beaufort scale < 6 (*wind speed* < 22 *knots*) relative to June
- 5. & 7. Wave Height:** Scale monthly catch rates based on mean (2007-2015) ratio of “fishable days” for Beaufort scale < 5 (*wave height* < 2 m) and Beaufort scale < 6 (*wave height* < 3 m) relative to June



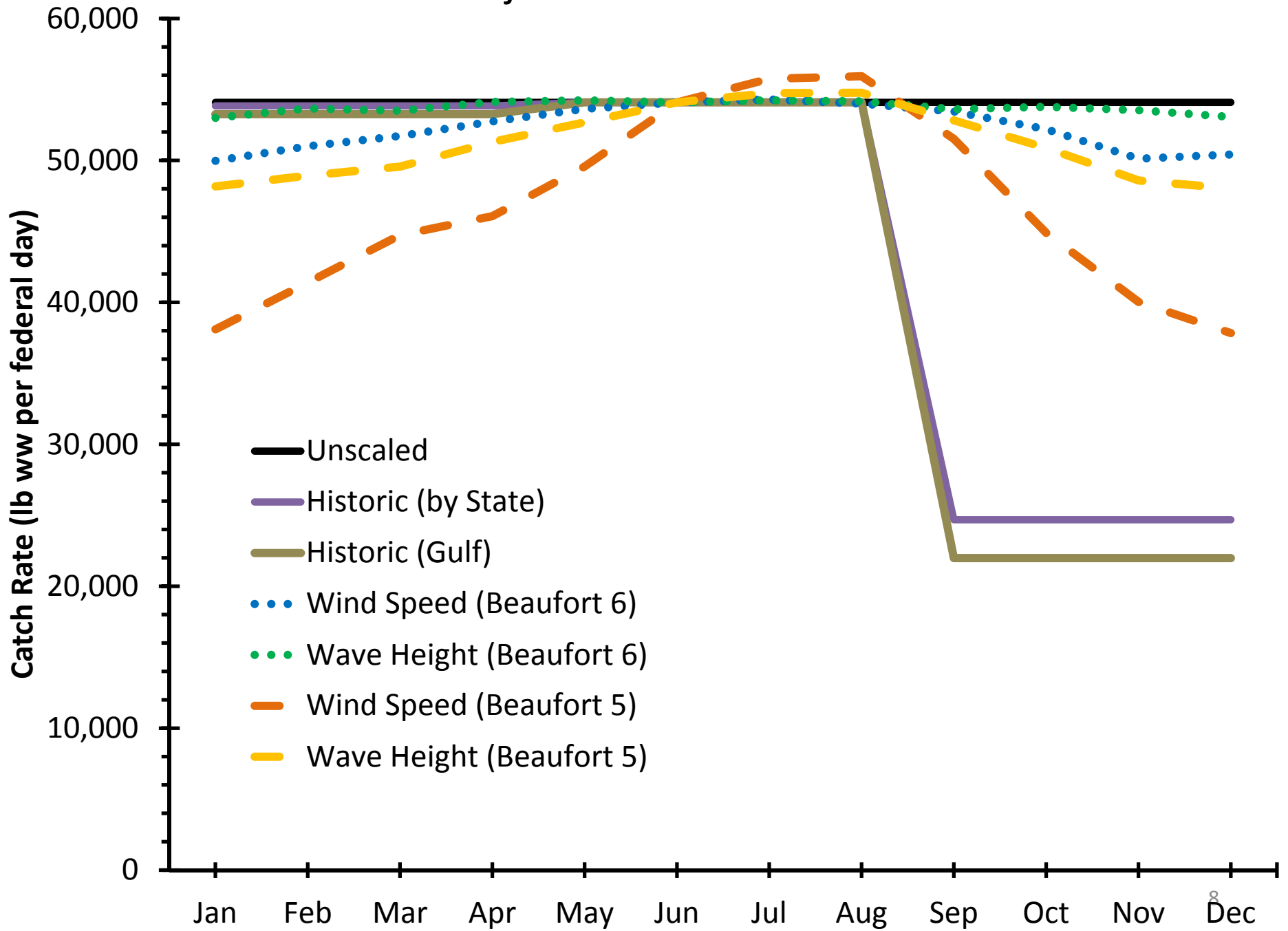
# Historic



# Fishable Days: Beaufort Scale < 5



# Projected Catch Rates





## SPLIT SEASON OPTION 1: APR 20-MAY 31, SEPT 1-END

DAYS OPEN BEFORE ACT EXCEEDED							
				Beaufort Scale = 6		Beaufort Scale = 5	
Month	Unscaled	Historic (by State)	Historic (Gulf)	Wind Speed	Wave Height	Wind Speed	Wave Height
April	11	11	11	11	11	11	11
May	31	31	31	31	31	31	31
Sept.	2	6	7	3	2	7	4
<b>TOTAL</b>	<b>44</b>	<b>48</b>	<b>49</b>	<b>45</b>	<b>44</b>	<b>49</b>	<b>46</b>

## SPLIT SEASON OPTION 2: JUNE 1-30, OCT 1-END

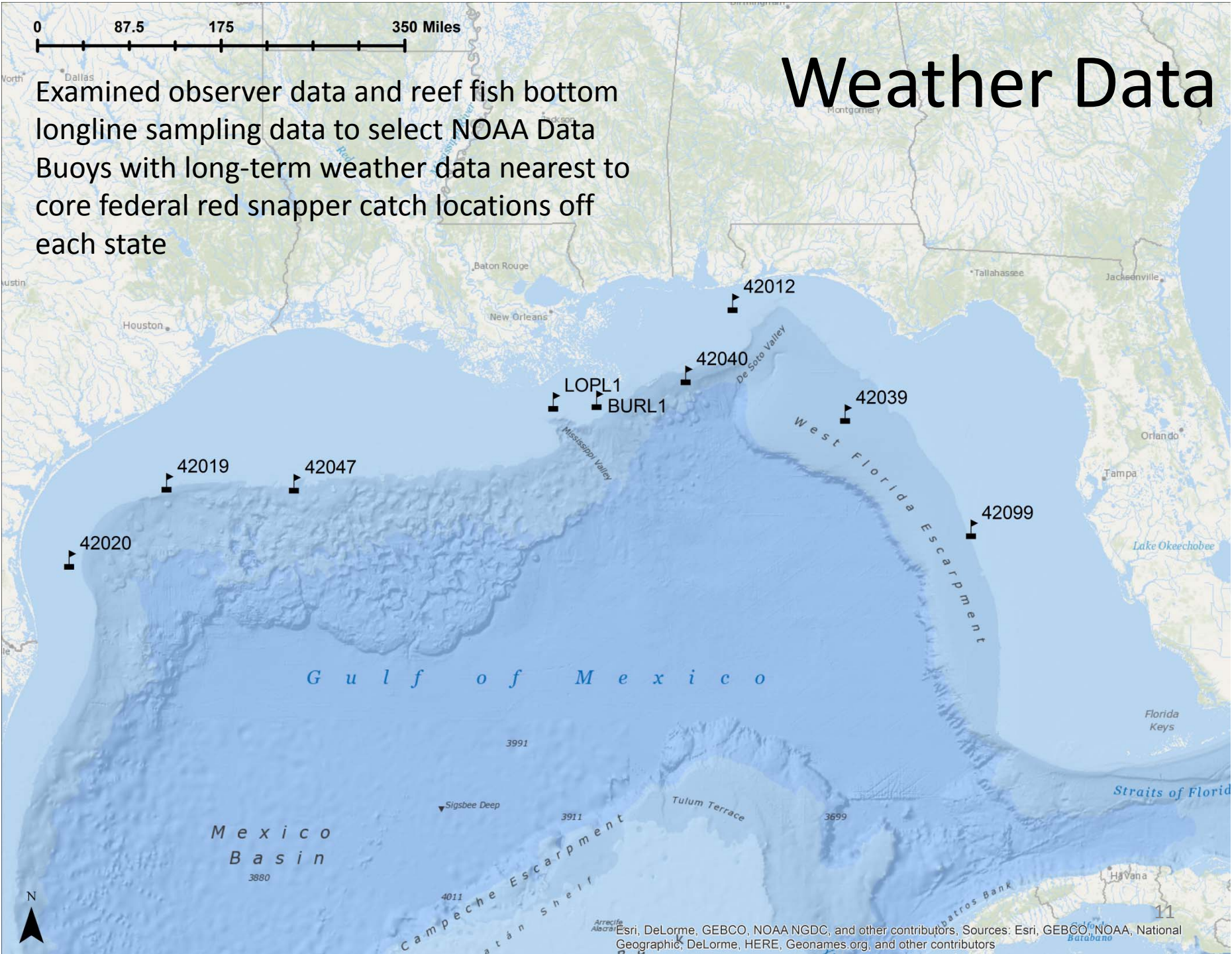
DAYS OPEN BEFORE ACT EXCEEDED							
				Beaufort Scale = 6		Beaufort Scale = 5	
Month	Unscaled	Historic (by State)	Historic (Gulf)	Wind Speed	Wave Height	Wind Speed	Wave Height
June	30	30	30	30	30	30	30
Oct.	14	31	31	15	15	18	15
Nov.	0	1	5	0	0	0	0
Dec.	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>44</b>	<b>62</b>	<b>66</b>	<b>45</b>	<b>45</b>	<b>48</b>	<b>45</b>

Questions?



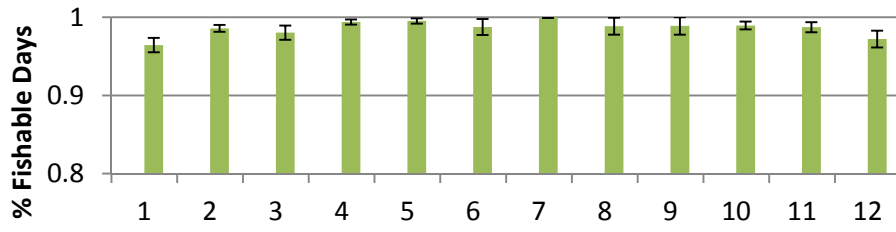
# Weather Data

Examined observer data and reef fish bottom longline sampling data to select NOAA Data Buoys with long-term weather data nearest to core federal red snapper catch locations off each state

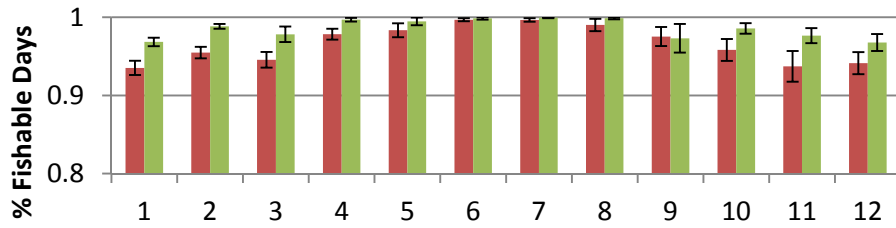


Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors. Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors

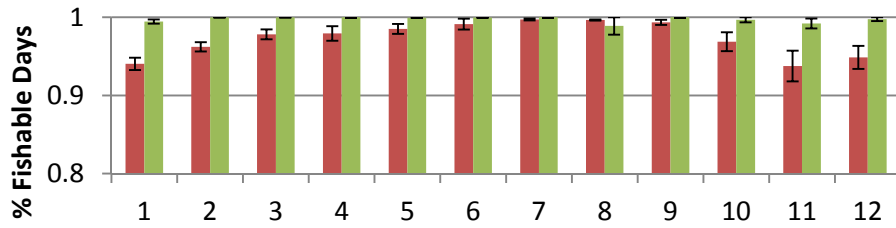
**42099 - St Petersburg, FL**



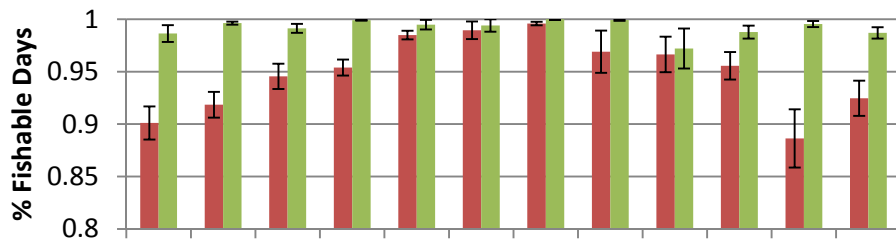
**42039 - Pensacola, FL**



**42012 - Orange Beach, AL**

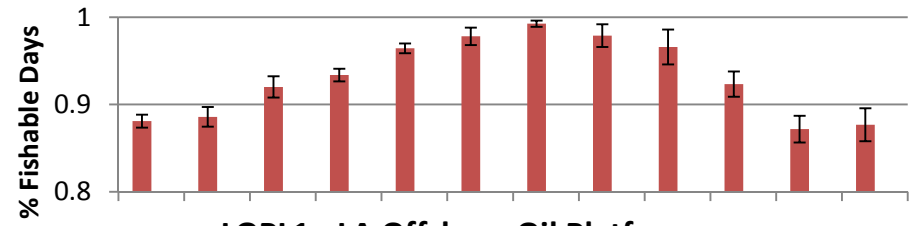


**42040 - Luke Offshore, Dauphin Island, AL**

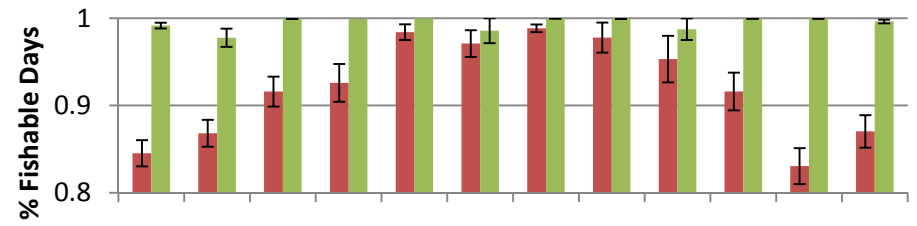


Wind Speed Wave Height

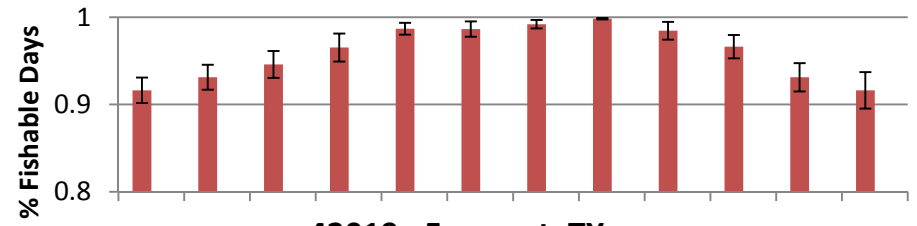
**BURL1 - SW Pass, LA**



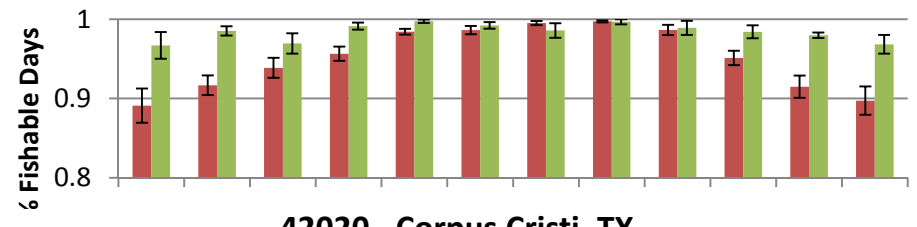
**LOPL1 - LA Offshore Oil Platform**



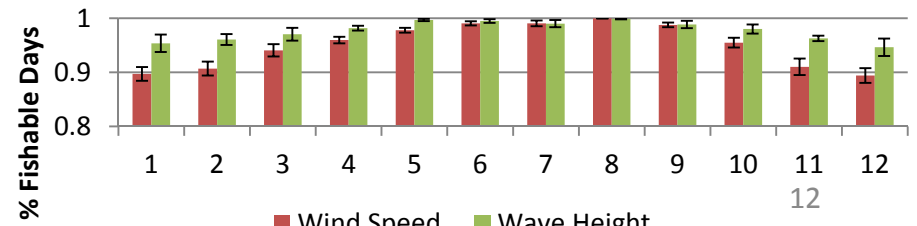
**42047 - HI-A389 TABS V (south of Lake Charles, LA)**



**42019 - Freeport, TX**



**42020 - Corpus Cristi, TX**

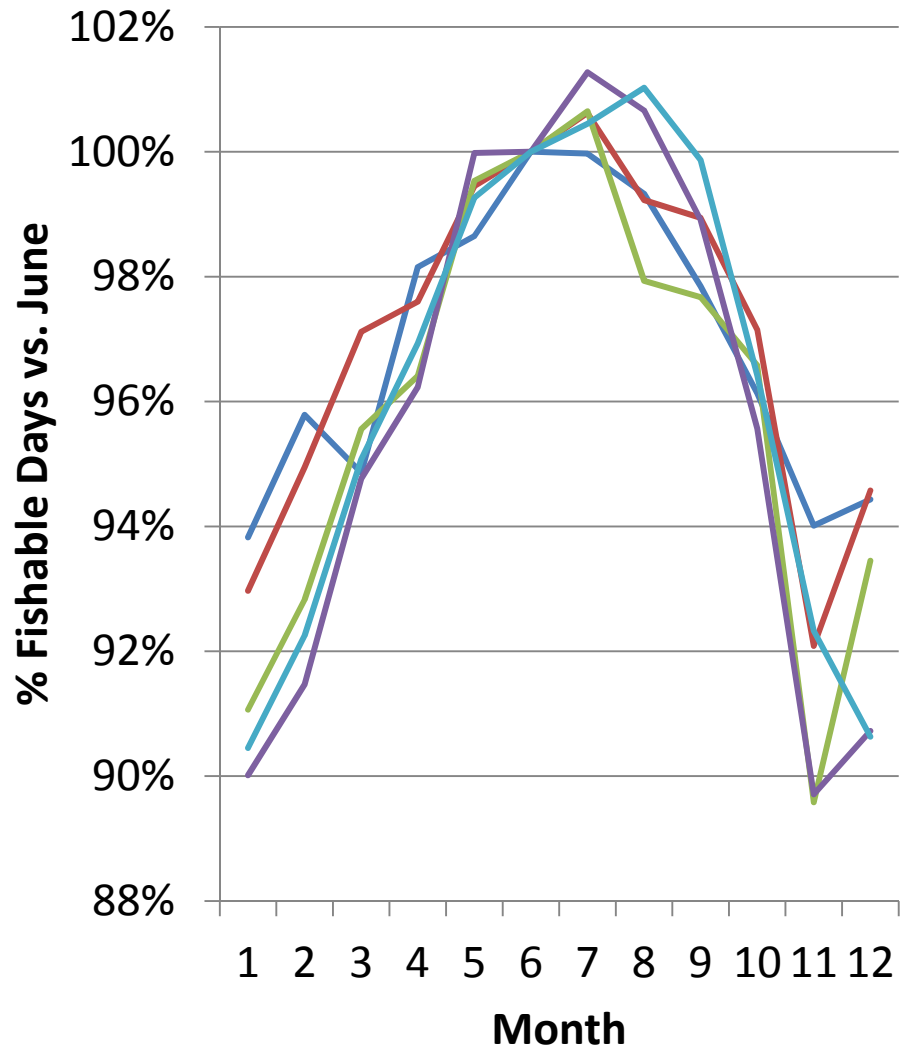


Wind Speed Wave Height

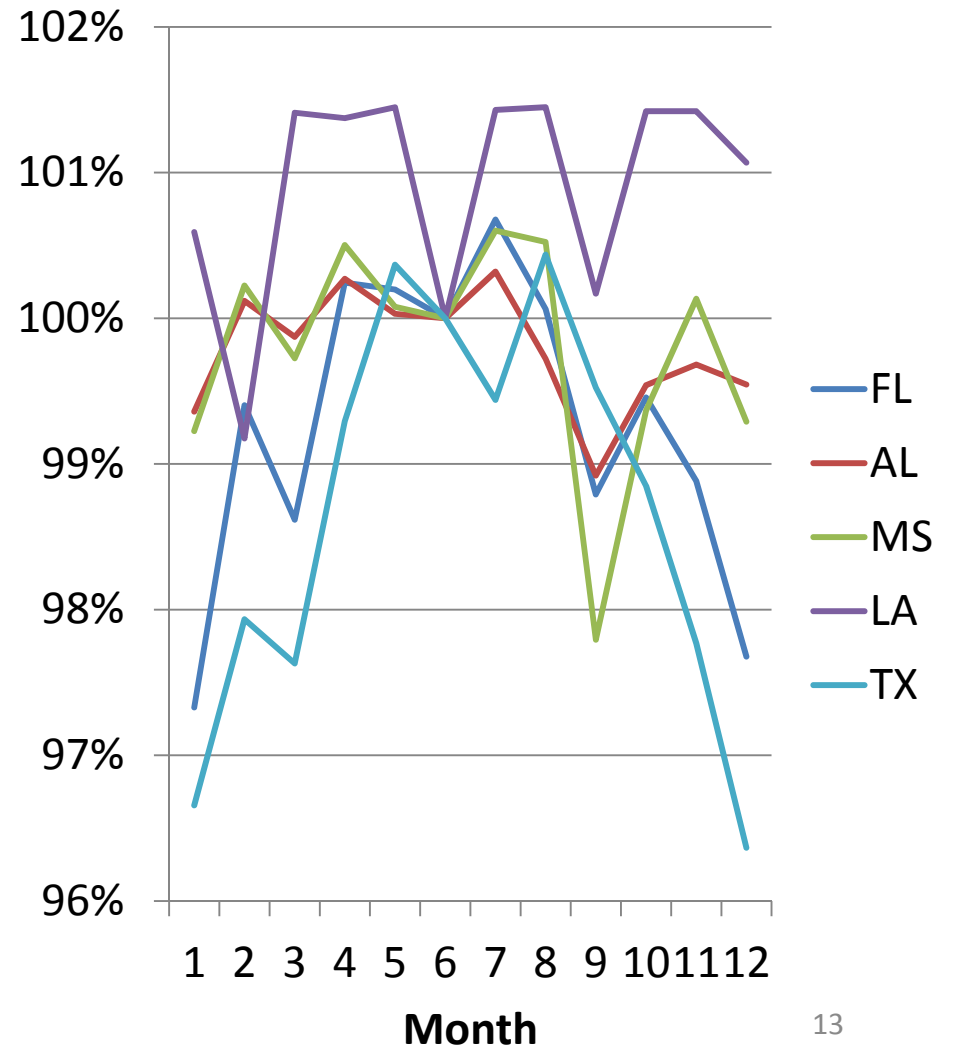
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# Fishable Days: Beaufort Scale < 6 (no Small Craft Advisory)

## Wind Speeds < 22 knots



## Wave Heights < 3 m



# Projected Catch Rates

*(lb ww per open federal day)*

					Beaufort Scale = 6		Beaufort Scale = 5	
Month	Unscaled	Historic (by state)	Historic (Gulf)	LA_TX	Wind Speed	Wave Height	Wind Speed	Wave Height
1	54,096	53,846	53,255	16,938	49,981	53,006	38,107	38,107
2	54,096	53,846	53,255	16,938	51,005	53,672	41,407	41,407
3	54,096	53,846	53,255	16,938	51,730	53,507	44,745	44,745
4	54,096	53,846	53,255	16,938	52,756	54,129	46,085	46,085
5	54,096	54,096	54,096	54,096	53,639	54,240	49,584	49,584
6	54,096	54,096	54,096	54,096	54,096	54,096	54,096	54,096
7	54,096	54,096	54,096	54,096	54,305	54,242	55,759	55,759
8	54,096	54,096	54,096	54,096	54,007	54,173	55,938	55,938
9	54,096	24,690	21,983	99,017	53,451	53,615	51,518	51,518
10	54,096	24,690	21,983	99,017	52,202	53,789	44,899	44,899
11	54,096	24,690	21,983	99,017	50,132	53,546	40,038	40,038
12	54,096	24,690	21,983	99,017	50,423	53,075	37,845	37,845