Expected Closure Dates of the Commercial and Recreational Yellowtail Snapper Fisheries Under Proposed In-season Accountability Measures

LAPP/DM Branch Southeast Regional Office

The South Atlantic Fishery Management Council manages yellowtail snapper from federal waters at the Virginia/North Carolina border through the Atlantic side of the Florida Keys under the Snapper-Grouper Fishery Management Plan (FMP). In 2016, Regulatory Amendment 25 to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region changed the commercial season to August 1 through July 31 for both the recreational and commercial sectors. This analysis investigates when the commercial and recreational sectors will be expected to close under the proposed in-season accountability measures (**Table 1**) using observed landings between 2015 and 2017 for both sectors as described in **Table 2 and Figure 1**.

Table 1. South Atlantic yellowtail snapper recreational and commercial in-season accountability measures alternatives stated in Amendment 32.

Action 2 Alternatives:	In-season accountability measure:		
No Action	Recreational and commercial sectors close		
	if their respective sector's ACL is met or		
	projected to be met.		
Alternative 2	An in-season closure will not occur for		
	either sector until the total ACL is met or		
	projected to be met. Both sectors will close		
	at that time.		
Alternative 3	An in-season closure will occur for only		
	the commercial sector if the commercial		
	ACL has been met and the 80% of the total		
	ACL is met or is projected to be met.		
Alternative 4	An in-season closure will occur for only		
	the commercial sector if the commercial		
	ACL has been met and the 70% of the total		
	ACL is met or is projected to be met.		

Table 2. Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic for fishing years 2012-2017.

Yellowtail Snapper Commercial and Recreational Landings										
Fishing Year	Rec. Landings (lbs ww)	Com. Landings (lbs ww)	Total Landings (lbs ww)	Total ACL (lbs ww)	% Total ACL	% Rec ACL	% Com ACL			
2012	493,409	1,439,585	1,932,994	2,627,796	74%	48%	90%			
2013	666,027	1,328,968	1,994,995	3,037,500	66%	46%	83%			
2014	933,760	1,575,955	2,509,715	3,037,500	83%	65%	99%			
2015	791,157	1,691,804	2,482,961	3,037,500	82%	55%	106%ª			
2016	576,578	1,353,176	1,929,754	3,037,500	NA*	NA*	NA*			
2016/2017	672,464	1,810,770	2,483,234	3,037,500	82%	47%	114% ^b			

^{*}The fishing season for yellowtail snapper was modified in Regulatory Amendment 25, which took effect on August 12, 2016. For this reason, 2016 includes January through August 12, 2016 landings and 2016/17 fishing season landings are provided separately.

aIn-season closure for commercial sector from October 31, 2015 to December 31, 2015.

bIn-season closure for commercial sector from June 3, 2017 to July 31, 2017.

Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).

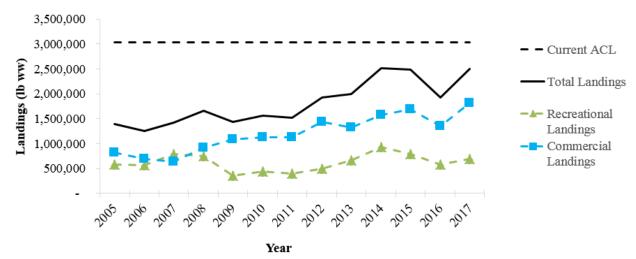


Figure 1. Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic for fishing years 2005-2017. Total landings are indicated by solid black line and current total ACL is depicted by the dashed line. Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).

Final commercial landings for 2014 through 2017 were provided from the Southeast Fisheries Science Center (SEFSC) on November 5, 2018. Monthly South Atlantic commercial yellowtail snapper landings were averaged from 2014 through 2017 to project future landings (**Figure 2**). Landings from 2014 were used to estimate projected landings in June and July since there was a closure during these months in 2017. Landings from 2014 were also used to estimate projected landings in November and December since there was a closure during these months in 2015. Regulatory Amendment 25 changes to the commercial fishing year are assumed to have minimal impact on monthly fishing behavior, and no adjustments were made to monthly landings in 2016. Based on the projected future commercial landings of yellowtail snapper, the commercial sector will close as described in **Table 3**. Alternative 2 was the only alternative that a commercial sector closure was not expected.

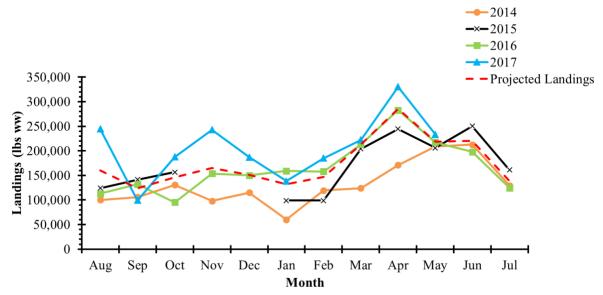


Figure 2. South Atlantic yellowtail snapper monthly commercial landings (lb ww) for 2014-2017, and projected future landings. Source: SEFSC Commercial ACL Dataset (November 5, 2018).

A recreational landings dataset was provided from the SEFSC on August 9, 2018. This dataset includes landings from the Southeast Region Headboat Survey (SRHS) and Marine Recreational Information Program (MRIP). SRHS data provides monthly landings estimates whereas MRIP data is provided in two month waves (e.g., January and February = wave 1, March and April = wave 2, etc.). To estimate monthly landings, MRIP waves were used to estimate to monthly landings by assuming equal daily catch rates between months, and then SRHS landings were added back in. Average monthly landings from 2015-2017 were used as a proxy for future landings. Regulatory Amendment 25 changes to the recreational fishing year are assumed to not have impacted monthly fishing behavior since the recreational sector has never reached their ACL. Recreational landings from 2015, 2016, 2017 and projected future landings are summarized in **Figure 3**. Based on the projected recreational landings of yellowtail snapper, the recreational sector will not be expected to close under the proposed in-season accountability measures (**Table 3**).

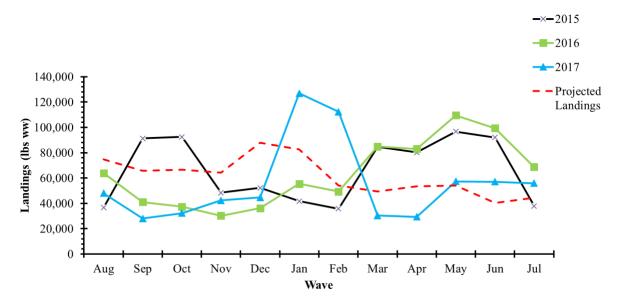


Figure 3. South Atlantic yellowtail snapper monthly recreational landings (lb ww) for 2015-2017, and projected future landings. Source: SEFSC Recreational ACL Dataset (August 9, 2018).

Table 3. The projected South Atlantic yellowtail snapper commercial and recreational landings (lb ww) and closure dates expected with each proposed in-season accountability measure alternative.

Yellowtail Snapper Projected Closure Dates									
Alternative	Combined ACL	Recreational ACL	Projected Recreational Landings	Recreational Closure Date	Commercial ACL	Projected Commercial Landings	Commercial Closure Date	Total Landings	% Combined ACL Landed
No Action	3,037,500	1,440,990	738,194	No closure	1,596,510	1,596,510	11-May	2,334,704	77%
Alt 2	3,037,500	Combined ACL (3,037,500)	738,194	No closure	Combined ACL (3,037,500)	2,102,729	No closure	2,840,923	94%
Preferred -Alt 3	3,037,500	Combined ACL (3,037,500)	738,194	No closure	80% Combined ACL (2,430,000)	1,810,256	9-Jun	2,548,450	84%
Alt 4	3,037,500	Combined ACL (3,037,500)	738,194	No closure	70% Combined ACL (2,126,250)	1,596,510	11-May*	2,334,704	77%

^{*}The 70% combined ACL is met before the commercial sector is expected to reach their sector ACL (1,596,510 lb ww), and therefore, the commercial sector will close when the commercial ACL is reached as projected for the No-Action alternative.

The reliability of these results is dependent upon the accuracy of the underlying data and input assumptions. We have attempted to create a realistic baseline as a foundation for comparisons, under the assumption that projected future landings will accurately reflect actual future landings. These closure dates are our best estimate, but uncertainty still exists as economic conditions, weather events, changes in catch-per-unit effort, fisher response to management regulations, and a variety of other factors may cause departures from any assumption.