Synopsis of Red Snapper Data

Red snapper in the South Atlantic have been managed with no size limit, 1 fish per person bag limit, 75 pounds commercial trip limit, limited season, and Annual Catch Limits since 2013. The National Marine Fisheries Service (NMFS) issued a temporary rule to allow harvest of red snapper in 2012 while the Council worked to develop a plan amendment to put in place permanent regulations. Amendment 28 to the Snapper Grouper FMP was approved in 2013. The amendment specified the process and formulas for setting commercial and recreational annual catch limits (ACLs) for red snapper during limited fishing seasons beginning in 2013. The current annual ABCs, which include dead discards, are provided in **Table 1**. Revised ABCs will be available after a new red snapper assessment (SEDAR 41, under development) is reviewed and approved by the SAFMC's Scientific and Statistical Committee. Accountability measures for red snapper include a provision to not open a season if the previous year's harvest, including dead discards, exceeds the projected ABC for that year. In 2015, harvest of red snapper was not allowed due to total removals exceeding the 2014 ABC. The Southeast Fisheries Science Center will provide estimates of total red snapper removals for 2015 in May 2016. A determination as to whether harvest of red snapper will be allowed in 2016 will be made by NMFS during the June 2016 Council meeting.

Table 1. Projected ABC for South Atlantic red snapper 2012-2016 and South Atlantic red snapperlandings 2012-2014 in numbers of fish. D(1000) is dead discards in 1,000 of fish. L(1000) is numberslanded in 1,000 of fish, and total removals are the dead discards and landed red snapper in 1,000 of fish.

	ABC			Landings/Discards		
Year	D(1000)	L(1000)	Total Removals	D (1000)	L (1000)	Total Removals
2012	41	45	86	84	19	103
2013	44	52	96	61	13	74
2014	47	59	106	144	42	186
2015	50	64	114			
2016	52	69	121			

Stakeholders have been requesting different management measures for red snapper. At the December 2015 meeting, the Council discussed possibly revising the minimum size limit, trip/bag limit, and season. The Council needs to further discuss possible changes to management of red snapper in anticipation of the red snapper stock assessment being accepted. Amendment 43 would be the vehicle to propose those changes and would contain detailed analyses to consider a suite of management options for red snapper. To inform the Council's discussions, this document summarizes data on landings, discards, seasonality of harvest, length distribution of fish harvested, distribution of recreational catches, and distribution of commercial trips. The data presented herein are preliminary and may differ from data included in the amendment document as data sets and data sources have not been reviewed by the Interdisciplinary Plan Team.

Landings

Recreational landings peaked in 2008 slightly before commercial harvest peaked in 2009 (**Figure 1**). Landings for both sectors dropped in 2010 with implementation of Amendment 17A (SAFMC 2010), which prohibited harvest of red snapper in federal waters of the South Atlantic. In 2012, 2013, and 2014, recreational and commercial harvest of red snapper was allowed during limited seasons based on the process established through Amendment 28.

Tracking red snapper discards is important since dead discards are included in the ABC. The majority of discards can be attributed to the recreational fishery (**Figure 1**). Similar to landings, recreational discards peaked in 2008, while commercial discards peaked in 2011. The number of discarded red snapper exceeded the number of kept red snapper in the recreational fishery from 2006 to 2014 and in the commercial fishery from 2010 to 2014 (**Figure 1**).





Figure 1. South Atlantic commercial (blue) and recreational (gray) red snapper landings (solid line) in pounds and number and discards (dashed line), 2006-2014. Commercial landings in 2011 are confidential. Source: ACCSP (commercial) and MRIP and SRHS (recreational).

Seasonality

Recreational red snapper harvest was allowed throughout the year prior to 2010 with a 20 inch size limit and 2 fish bag limit. Federal waters were closed to red snapper harvest in 2010 and 2011. In 2012, the recreational season opened in September with a 1 fish per person bag limit and no minimum size limit. In 2013 and 2014, the recreational season opened in July. Prior to 2010, the peak in recreational harvest was variable (**Figure 2**).

Discards in the recreational fishery are much higher than in the commercial fishery. Therefore, recreational discards were plotted along with recreational harvest for 2006-2014, by wave, to estimate the relative difference (**Figure 2**). The highest number of discards (over 150,000 fish) occurred in Wave 4 (July-August) of 2014 while greater than 100,000 red snapper were discarded in Wave 4 (July-August) of 2007 and Wave 3 (May-June) of 2008.



Figure 3. South Atlantic recreational red snapper landings and discards in numbers of fish by wave, 2006-2010 and 2012-2014. Harvest of red snapper was prohibited during 2011. Source: MRIP Website and SRHS.

Prior to 2010, a 20 inch size limit was in place for red snapper in commercial fisheries. In 2012, the commercial season was opened in September with a 50-pound trip limit with no size limit. In 2013 and 2014, commercial harvest was opened in July with a 75-pound trip limit with no size limit. Since landings data for 2012 to 2014 are limited, data from 2006 to 2009 were plotted to examine seasonality of harvest (**Figure 3**). There are no clear patterns in seasonality of harvest for the commercial catch.



Figure 3. South Atlantic red snapper monthly commercial landings in pounds, 2006 to 2009. Source: ACCSP.

Length Harvested

Figures 4 and **5** show the size distribution of red snapper retained in recreational and commercial fisheries, respectively, from 2006 through 2014 (excluding 2010 and 2011 since less than ten trips were sampled in those years for both sectors combined). Both the recreational and commercial sectors retained a higher proportion of red snapper smaller than 20 inches from 2012 to 2014 compared to 2006 to 2009. This was expected since the 20-inch size limit was no longer applicable after 2010 when the prohibition on red snapper harvest took place. However the modal size of fish caught recreationally

(most common size of fish) was larger in 2012 to 2014 compared to 2006 to 2009 (**Figure 4**). In the recreational fishery, the percentage of fish greater than 28 inches (~75% of von Bertalanffy estimated maximum size) increased from an average of 9% from 2006 to 2009 to 21% in 2012, 38% in 2013, and 46% in 2014 (**Figure 4**).

Over the same time period, the size distribution of red snapper harvested commercially shifted from being centered near the 20-inch minimum size limit prior to 2010 to a wider distribution from 2012 through 2014 (**Figure 5**). In the commercial fishery, the highest percent of fish greater than 28 inches (71 cm) occurred in 2006 and 2007 with 40% and 39%, respectively. From 2012 to 2014, the percent of fish greater than 28 inches averaged 31%.



Figure 4. Weighted length distribution of red snapper harvested by the recreational fishery from 2006 to 2009 with a 20 inch size limit and 2012 to 2014 with no size limit. The black dot represents 20 inches. Source: SEDAR 41AW03.



Figure 5. Weighted length distribution of red snapper harvested by the commercial fishery from 2006 to 2009 with a 20-inch size limit, and 2012 to 2014 with no size limit. The black dot represents 20 inches. Source: SEDAR 41AW05.

Distribution of Recreational Catches

On recreational trips that caught (landed plus released) at least one red snapper from 2010 through 2014, the catch per angler per trip was less than one (**Figure 6**) indicating that not all fishermen caught a red snapper on the trip. On some trips, the catch per angler was greater than four. In most years, greater than 15% of the anglers caught 3 or more red snapper. The distribution of landed red snapper is skewed toward zero when compared with the catch likely due to the closed seasons (**Figure 7**).



Figure 6. Weighted distribution of South Atlantic red snapper recreational catch (A+B1+B2) by angler per trip in numbers of fish, 2010-2014. Note: Headboat not included. Source: MRIP



Figure 7. Weighted distribution of South Atlantic red snapper landed (A+B1) by recreational anglers per trip in numbers of fish, 2010-2014. Note: Headboat not included. Source: MRIP

Distribution of Commercial Catch

Prior to 2010, no trip limit existed for red snapper. In 2012, a short commercial season took place under a 50-pound trip limit. In 2013 and 2014, the trip limit was increased to 75 pounds. In 2008 and 2009, there was a significant increase in the number of trips harvesting greater than 500 pounds of red snapper per trip (**Figure 8**) and resulted in much higher pounds landed from that trip category (**Figure 9**). After 2009, the majority of trips were landing 50 to 99 pounds per trip and the percent of trips harvesting fewer than 25 pounds was much lower.



Figure 8. Distribution of South Atlantic red snapper commercial trips by trip catch (lbs ww) by year, 2006-2009 and 2012-2014. Source: ACCSP



Figure 9. Distribution of South Atlantic red snapper commercial harvest by trip catch (lbs ww) by year, 2006-2009 and 2012-2014. Source: ACCSP