

Background Document on Golden Tilefish

Snapper Grouper Committee Meeting
Ponte Vedra, FL

June 2017

South Atlantic golden tilefish are currently managed under provisions of Snapper Grouper Amendment 18B and Regulatory Amendment 12, including overfishing level (OFL) and acceptable biological catch (ABC) values derived from SEDAR 25 (2011). Regulatory Amendment 12 included annual values of OFL and ABC for 2012 through 2015 and a constant annual catch limit (ACL). ABC recommendations from the Scientific and Statistical Committee (SSC) were based on a P^* value of 0.35 and ranged from 668,000 in 2012 to 655,000 in 2015. However, to address the high degree of uncertainty in the productivity estimates from the SEDAR 25 assessment and increase regulatory stability, the Council specified ACL on the basis of the equilibrium yield at 75% F_{MSY} . At the time this was considered a precautionary approach, as it resulted in an ACL that was about 94% of the average (2012-2015) ABC and about 52% of the average OFL.

The status of the golden tilefish stock in the South Atlantic was updated in 2016 with data through 2014 (SEDAR 25 update 2016). The update determined the golden tilefish stock is undergoing overfishing but is not overfished. The finding of overfishing was unexpected, given that the fishery had been generally managed within the limits of its ABC, well below its OFL, and the Council established a conservative ACL value that was around half of the OFL predicted from the SEDAR 25 assessment. The SSC reviewed the update during their May 2016 meeting and deemed it Best Scientific Information Available and suitable for management. The SSC provided fishing level recommendations based on a P^* value of .30 and projections that were provided for the SSC report of the May 2016 meeting.

The Council received the results of the update from the SSC in June 2016. However, Council members expressed concern over the large differences in biological benchmarks and fishing level recommendations between the 2016 update and SEDAR 25. It was noted that different methodologies were used in the update and several more years of data were added to the model. It was also noted that the 2000 year class, predicted to be extremely large in the SEDAR 25 assessment and the source of much discussion during SEDAR 25 and subsequent Council and SSC review, was estimated as about average in the 2016 update. Therefore, the Council requested that the SSC discuss specific items pertaining to the update during their fall 2016 meeting including uncertainties that impact productivity estimates, application of the P^* technique and the large difference between the OFL ($P^*=0.50$) and the ABC ($P^*=0.30$); review the performance, accuracy, and reliability of projections from past assessments; and comment on potential impacts of a phased-in approach to implementing the reduced catch levels.

As requested, the SSC discussed the items above during their October 2016 meeting but made no change to their ABC recommendation. The SSC raised concerns with the change in the robust likelihood model fitting approach applied in the update assessment, but agreed with the technical advice from the Southeast Fisheries Science Center (SEFSC) that the approach was more robust than earlier methods. The SSC reviewed the OFL-ABC buffer, and commented that the number of age samples was an important factor. The SSC did not offer comment on the phased-in approach, however, since NOAA General Counsel advised (during the SSC meeting) that such an approach would first have to be incorporated into the Council's ABC Control Rule in order to be implemented (according to revisions to the National Standard 1 Guidelines).

In December 2016, The Council approved a motion to initiate development of a plan amendment that would modify the ABC Control Rule to implement a phased-in approach to ending overfishing of golden tilefish. In addition, the Council requested that the SEFSC provide projections at $P^*=0.45$ and $P^*=0.40$. Under the current control rule, the P^* value is recommended by the SSC based on ABC control rule criteria, so changes to the control rule may be required to enable the Council to specify the P^* value directly. On January 3, 2017, the Council received a memo from the NMFS Southeast Regional Office indicating that the golden tilefish stock was undergoing overfishing. The memo noted that ABC recommendations were provided at the December 2016 Council meeting and that the Council needed to take action to end overfishing. According to the Final Rule revising guidelines for Magnuson Stevens Act National Standards 1, 3, and 7 (Federal Register, October 18 2016): "Upon notification that a stock or stock complex is undergoing overfishing, a Council should immediately begin working with its SSC (or agency scientists or peer review processes in the case of Secretarially managed fisheries) to ensure that the ABC is set appropriately to end overfishing. Councils should evaluate the cause of overfishing, address the issue that caused overfishing, and reevaluate their ACLs and AMs to make sure they are adequate."

During the March 2017 Council meeting, staff presented a possible approach for the Committee's consideration, to address overfishing, that would specify an interim ABC for golden tilefish at the projected yield at $75\%F_{MSY}$ while an updated assessment is prepared. The Council requested the updated assessment in a March 22, 2017 memo to the SEFSC to address key uncertainties raised during the prior SSC and Council deliberations. These uncertainties included the single selectivity period that applies recent observed increased selectivity of older ages to the entire assessment period, a further change in model fitting algorithms based on published references raising bias concerns with the likelihood approach applied in the 2016 update, and concerns that the 2014 terminal year imposes excessive uncertainty. The SEFSC indicated, through a memo on March 24, 2017, that a tilefish updated could not be completed in 2017, due to concerns with analyst availability and otolith evaluation.

At its April 2017 meeting, the SSC reviewed the revised projections based on P^* values of 0.45 and 0.40. The SSC also discussed the Council's request to set ABC at $75\%F_{MSY}$. The SSC commented that the various P^* projections were very similar to each

other and to the $F_{75\% F_{MSY}}$ projection, and decided not to deviate from their previous ABC recommendation for golden tilefish based on the P^* approach as defined in the ABC Control Rule. Recommended ABC levels for 2017 through 2019 based on a P^* of 0.30 are presented along with the fishing levels currently in place in **Table 1**. The current ACL for golden tilefish was set at the yield at $75\% F_{MSY}$ when the stock is at equilibrium (625,000 pounds ww (558,036 pounds gw)) through implementation of Regulatory Amendment 12 in October 2012. Ninety-seven percent of the golden tilefish ACL is allocated to the commercial sector and 3% to the recreational sector.

The SEDAR Steering Committee discussed the Council’s request for a tilefish update at their May 2017 meeting during discussion of assessment priorities. The SEFSC agreed to revise the 2016 golden tilefish update to incorporate the latest model fitting approach, as used in the recent Red Grouper assessment (SEDAR 53 2017). Results of this modification are expected to be available for the SSC to review in the fall. The Council would review the updated assessment along with the SSC’s recommendations at their December 2017 meeting.

Table 1. Fishing level recommendations from SEDAR 25 (2011) and SEDAR 25 Update (2016) in pounds gutted weight (lbs gw) a $P^*=0.30$.

	SEDAR 25 (2011) (lbs gw)	SEDAR 25 Update (2016) (lbs gw)
MSY	596,643	560,000
OFL		
2017	804,000	377,000
2018	763,000	402,000
2019	730,000	426,000
ABC		
2017	608,000	233,000
2018	596,000	267,000
2019	586,000	302,000

Commercial and recreational landings of golden tilefish from 2010 through 2015 in pounds whole weight (lbs ww) and pounds gutted weight (lbs gw) are shown in **Tables 2** and **3**, respectively. Average landings for the time period were 512,268 lbs gw and 574,143 lbs ww. The recommended ABC for 2017 (233,000 lbs gw) would represent a 55% reduction in harvest from average 2010-2015 landings, a 62% reduction from average 2014-2015 landings, and a 56% reduction from 2015 landings.

Golden Tilefish Landings (lbs gw)			
Year	Commercial	Recreational	Total
2010	365,527	9,636	375,162
2011	361,401	18,888	380,289
2012	517,282	11,513	528,795
2013	537,950	14,040	551,990
2014	704,617	4,520	709,137
2015	514,054	16,341	530,395
Average	500,139	12,490	512,268

Golden Tilefish Landings (lbs ww)			
Year	Commercial	Recreational	Total
2010	409,390	10,792	420,182
2011	404,769	21,154	425,923
2012	579,356	12,895	592,251
2013	602,504	15,724	618,228
2014	789,171	5,062	794,233
2015	575,741	18,302	594,043
Average	560,155	13,988	574,143

COMMITTEE ACTION:

OPTION 1. AWAIT RESULTS OF REQUESTED UPDATES TO THE SEDAR 25 UPDATE ASSESSMENT AND TAKE ACTION TO IMPLEMENT CHANGES IN MARCH 2018.

This option would result in changes to the 2019 fishing levels and ensure that fishing levels are adjusted based on updated assessment methodology.

OPTION 2. REQUEST THAT NMFS TAKE EMERGENCY ACTION TO IMPLEMENT THE RECOMMENDED CHANGES (TABLE 1) TO FISHING LEVELS TO END OVERFISHING.

This option could affect the 2018 fishing year. The Council would have to develop a regulatory amendment to replace the emergency rule within 1 year. Snapper grouper items would need to be re-prioritized.

OPTION 3. UTILIZE THE EXPEDITED FRAMEWORK PROCEDURE TO ADOPT NEW FISHING LEVELS FOR GOLDEN TILEFISH TO END OVERFISHING.

The expedited framework procedure could be used to adjust fishing levels but not to modify/implement management measures. If approved in September 2017 regulations could be in place for the 2018 fishing year. The expedited framework would not significantly affect priority of other snapper grouper items.

OPTION 4. INITIATE DEVELOPMENT OF A REGULATORY AMENDMENT TO IMPLEMENT RECOMMENDED CHANGES TO FISHING LEVELS AND MANAGEMENT MEASURES FOR GOLDEN TIELFISH TO END OVERFISHING.

A regulatory amendment would take one year to be developed and would allow for modifications to management measures. Regulations would affect the 2019 fishing year. Snapper grouper items would need to be re-prioritized.

OPTION 5. OTHERS??