South Atlantic Black Sea Bass Quota Closure Projection
Southeast Regional Office
St. Petersburg, FL
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Background

NOAA Fisheries Service published a final rule on December 30, 2010, implementing Amendment 17B to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region. This final rule will be effective January 31, 2011. The rule establishes annual catch limits (ACLs) and accountability measures (AMs) for nine snapper-grouper species (golden tilefish, snowy grouper, speckled hind, warsaw grouper, gag, red grouper, black grouper, black sea bass, and vermilion snapper) as required by the Magnuson-Stevens Fishery Conservation and Management Act. ACLs are set at levels that prevent overfishing and AMs are management controls established to ensure that ACLs are not exceeded, or they may correct for overages if ACLs are exceeded during a fishing season. For recreational black sea bass, the ACL for the June 1, 2010-May 31, 2011, fishing season is 409,000 pounds gutted weight (lbs gw). Black sea bass are currently overfished, and AMs for recreational black sea bass require the recreational sector to be closed when the ACL is met or projected to be met. Additionally, if the ACL during the 2010-2011 fishing season is exceeded, the recreational sector ACL in the following year is reduced by the amount of the overage. Any adjustments to the 2011-2012 recreational ACL are not included in this report and will be calculated when final landings information are available. The purpose of this analysis is to project when the 2010-2011 recreational black sea bass quota is met.

Data Sources

Preliminary recreational black sea bass landings were obtained from two data sources:

1. Marine Recreational Fisheries Statistics Survey (MRFSS), including the For-hire charter survey; and,
2. Southeast Fisheries Science Center Headboat survey.

MRFSS and For-hire black sea bass landings are estimated using a combination of dockside intercepts (landings data) and phone surveys (effort data). Landings are estimated in both numbers and whole weight (lbs) by two-month wave (e.g., Wave 1 = Jan/Feb, … Wave 6 = Nov/Dec), area fished (inland, state, and federal waters), mode of fishing (charter, private/rental, shore), and state (east Florida, Georgia, South Carolina, and North Carolina).

Headboat landings are collected through logbooks completed by headboat operators. Landings (lbs ww) are reported by vessel, day/month, and statistical reporting area (i.e., area 1 = Hatteras, N.C., …, area 17 = Dry Tortugas (South Atlantic waters)).

Reported Landings

The fishing year for recreational black sea bass is June 1 through May 31 each year. Preliminary landings for the 2010-2011 fishing year were available from MRFSS and the For-hire survey from May 1-October 31, 2010. Because landings are reported by two-month wave and not

monthly, landings from June 1-June 30 were calculated by multiplying the total landings from wave 3 (May-June) by the proportion of days in June (n = 30) relative to the number of days in the entire wave (n = 61). Preliminary headboat landings were provided by the SEFSC (K. Brennan, pers. comm.) for June 1-Dec 31, 2010. All landings for all modes were reported in pounds whole weight and converted to gutted pounds using a conversion factor of 1.18. This conversion factor is consistent with how the ACL was calculated in Amendment 17B. Reported landings are summarized in Table 1.

Projected Landings

Charter and private boat black sea bass landings for November 1-December 31, 2010, will not be available until mid-February 2011, and charter and private boat black sea bass landings for January 1-February 28 will not be available until mid-April 2011. Additionally, headboat landings for January 2011 are currently not available. To project when the black sea bass quota will be met, historical landings data from 2007-2010 were used to estimate charter and private landings for November 1-December 31, 2010, and January 1-February 28, 2011, and headboat landings for January 2011. The ratio of November-December landings and January-February landings relative to May-October landings was first computed for fishing years 2007-2008, 2008-2009, 2009-2010, and using a three year average across fishing years (Table 3). Ratios were also computed for January and February headboat landings relative to landings during May-December, by fishing year (Table 4). These ratios were then multiplied by total landings (see Table 1) for each mode to project unavailable landings for fishing year 2010-2011. Because the final rule for Amendment 17B is effective January 31, 2011, projections were run through January 31. To compute January landings for charter and private modes, projected landings were multiplied by the number of days in January (n=31) and then divided by the total number of days during January and February (n=59).

Results

Available landings from June 1-December 31, 2010, indicate 364,913 lbs gw have been landed. This landings amount represents 89.2% of the recreational quota and excludes landings estimated by MRFSS during November 1-December 31, 2010, which are currently not available. Projected total landings estimated through January 31, 2011, ranged from 437,127 to 544,605 lbs gw (Table 5). All projections indicate the 409,000 lb gw quota has been exceeded. Estimated quota overages range from 28,127 to 135,605 lbs gw, or 7-33% of the recreational quota (Table 5).

Discussion

Projected landing estimates are highly variable and dependent on the historical fishing year chosen to project unavailable landings. Despite the high variability in estimated landings, all projections indicate the quota will be exceeded by 7 or more percent by January 31, 2011. The quota was estimated to be exceeded as early as December 2010. Projections based on proxies from more recent fishing years, as used here, are likely to better estimate actual landings as

they take into account changes in regulations and stock abundance affecting recreational landings.

Table 1. Available South Atlantic recreational black sea bass landings (lbs gw) for fishing year 2010-2011. Preliminary charter and private landing estimates for Nov 1-Dec 31 will be available in mid-February 2011.

Wave	Charter	Private	Headboat	All Modes
Jun 1-Jun 30	34,783	29,807	32,988	97,579
Jul 1-Aug 31	15,395	36,465	63,896	115,756
Sept 1-Oct 31	17,523	77,817	34,686	130,026
Nov 1-Dec 31	---	---	21,552	21,552
Total	67,701	144,089	153, 122	364,913

Table 2. Historical recreational South Atlantic black sea bass landings by mode and fishing year.

	Charter Landings (lbs gw)			
Wave(s)	2007-2008	2008-2009	2009-2010	3-yr avg
May-Oct	56,002	33,393	56,745	48,713
Nov-Dec	7,727	5,375	4,756	5,953
Jan-Feb	2,888	697	0	1,195

	Private Landings (lbs gw)			
Wave(s)	2007-2008	2008-2009	2009-2010	3-yr avg
May-Oct	333,004	174,203	107,633	204,947
Nov-Dec	84,278	121,743	39,217	81,746
Jan-Feb	33,511	50,781	63,498	49,264

	Headboat Landings (lbs gw)			
Month(s)	2007-2008	2008-2009	2009-2010	3-yr avg
Jun-Dec	77,590	56,464	114,967	83,007
Jan	809	4,743	4,665	3,406
Feb	2,623	5,071	6,552	4,749

Table 3. Ratio of historical Nov-Dec and Jan-Feb charter and private landings relative to landings during May-October, by fishing year.

	Ratio of wave landings rel to May-Oct landings			
Wave(s)	**2007-2008**	**2008-2009**	**2009-2010**	**3-yr avg**
Nov-Dec	13.8%	16.1%	8.4%	12.2%
Jan-Feb	5.2%	2.1%	0.0%	2.5%

	Ratio of wave landings to May-Oct landings			
Wave(s)	**2007-2008**	**2008-2009**	**2009-2010**	**3-yr avg**
Nov-Dec	25.3%	69.9%	36.4%	39.9%
Jan-Feb	10.1%	29.2%	59.0%	24.0%

Table 4. Ratio of historical January and February headboat landings relative to landings during May-December, by fishing year.

	Ratio of monthly landings to May-Dec landings			
Wave(s)	**2007-2008**	**2008-2009**	**2009-2010**	**3-yr avg**
Jan	1.0%	8.4%	4.1%	4.1%
Feb	3.4%	9.0%	5.7%	5.7%

Table 5. Reported and projected black sea bass landings based on four projection scenarios: 1) 2007-2008 landing ratios, 2) 2008-2009 landing ratios, 3) 2009-2010 landing ratios, and 4) 3-year average landing ratios. Projected landings are highlighted in gray.

		Estimated Landings (lbs gw)			
Mode	**Wave/Month**	**07-08 proxy**	**08-09 proxy**	**09-10 proxy**	**3-yr avg**
MRFSS charter	Jun	34,783	34,783	34,783	34,783
	Jul-Aug	15,395	15,395	15,395	15,395
	Sep-Oct	17,523	17,523	17,523	17,523
	Nov-Dec	14,301	16,683	8,687	12,665
	Jan	2,808	1,137	0	1,336
MRFSS private	Jun	29,807	29,807	29,807	29,807
	Jul-Aug	36,465	36,465	36,465	36,465
	Sep-Oct	77,817	77,817	77,817	77,817
	Nov-Dec	44,262	122,223	63,723	69,757
	Jan	9,247	26,787	54,212	22,088
Headboat	Jun	32,988	32,988	32,988	32,988
	Jul	34,079	34,079	34,079	34,079
	Aug	29,817	29,817	29,817	29,817
	Sep	13,426	13,426	13,426	13,426
	Oct	21,260	21,260	21,260	21,260
	Nov	13,153	13,153	13,153	13,153
	Dec	8,400	8,400	8,400	8,400
	Jan	1,597	12,863	6,213	6,283
Total	Jun 1-Jan 31	437,127	544,605	497,747	477,042
Quota Overage		28,127	135,605	88,747	68,042
% Overage		7%	33%	22%	17%