SAFMC/MAFMC OPTIONS PAPER
ITEMS FOR

AMENDMENT 18
TO THE COASTAL MIGRATORY
PELAGICS FISHERY MANAGEMENT PLAN

South Atlantic Fishery Management Council
Mid-Atlantic Fishery Management Council
Gulf of Mexico Fishery Management Council

MAY 13, 2010

JOINT GMFMC & SAFMC COMMITTEE MEETING
ORLANDO, FL
JUNE 8, 2010

1.0 INTRODUCTION

The Gulf of Mexico Fishery Management Council (GMFMC), the South Atlantic Fishery Management Council (SAFMC), and the Mid-Atlantic Fishery Management Council (MAFMC) are preparing to amend the Coastal Migratory Pelagics Fishery Management Plan (FMP) by consideration of actions as stated and discussed below. The primary action under consideration would establish Annual Catch Limits (ACLs) and Accountability Measures (AMs) for the following managed species:

(1) Cobia, *Rachycentron canadum*
(2) King mackerel, *Scomberomorus cavalla*
(3) Spanish mackerel, *Scomberomorus maculates*

The final rule to amend the National Standard 1 Guidelines for setting Annual Catch Limits (ACLs) and Accountability Measures (AMs) indicates that for species not undergoing overfishing, the mechanisms and values for ACLs and AMs must be specified in FMPs, FMP amendments, implementing regulations, or annual specifications beginning in fishing year 2011 (see Section(2)(A) in the center column on page 3211). This will require the Councils to complete the amendment by the end of 2010. Other species that are included in the FMP for data collection purposes are:

(4) Bluefish, *Pomatomus saltatrix* (Gulf of Mexico only)
(5) Cero, *Scomberomorus regalis*
(6) Little tunny, *Euthynnus alleteratus*
(7) Dolphin*, *Coryphaena hippurus* (Gulf of Mexico only)

These four species are not subject to the requirement of setting ACLs and AMs in fishing year 2011.

*Note: Dolphin in the South Atlantic, Mid-Atlantic, and New England Fishery Management Council's jurisdictions are managed under the Dolphin and Wahoo Fishery Management Plan with the southern boundary at the border between the Gulf and South Atlantic Councils.

In addition to setting ACLs and AMs, the Councils are considering additional actions to bring the CMP FMP into full compliance with the Magnuson-Steven Fishery Conservation and Management Act (M-SFCMA) and be consistent with best available science and current management practices.

2.0 PURPOSE FOR TAKING ACTION

Revisions to the M-SFCMA in 2006 require establishment of a mechanism for specifying Annual Catch Limits (ACLs) at a level that prevents overfishing and does not exceed the recommendations of the respective Council's Scientific and Statistical Committee (SSC) or other established peer review processes for all managed species. It also requires setting measures to ensure accountability. Accountability measures (AMs) are management controls that ensure that the Annual Catch Limits (ACLs) are not exceeded; or if the ACL is exceeded corrective measures are taken to prevent overfishing. Since none of the managed species under the CMP FMP are considered to be undergoing overfishing or are designated as overfished, the Councils have until sometime within the 2011 fishing year to implement ACLs and AMs.

Furthermore, various changes to the Framework Procedure within the CMP FMP are being considered and include: 1) incorporate the Southeast Data Assessment and Review (SEDAR) process for assessing stocks; 2) allow changes to the Councils' definitions of MSY, OY, MFMT, and MSST; 3) add modifications to and/or elimination of the existing zones, subzones, migratory group boundaries, and allocations to the list of actions that can be taken under the framework; 4) separate cobia into separate Atlantic and Gulf migratory groups; and 5) include setting or changing the Overfishing Level (OFL), Acceptable Biological Catch (ABC), ACL, Annual Catch Targets (ACT), and AM for managed stocks by framework action. By being able to modify these parameters through framework actions, the Councils can more-expeditiously respond to changing scientific advice as may be dictated by future stock assessments.

3.0 BACKGROUND

3.1 Boundary

The Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic (FMP), approved in 1982 and implemented by regulations effective in February of 1983, treated king and Spanish mackerel each as one U.S. stock. The present management regime for mackerel recognizes two migratory groups of king and Spanish mackerel, the Gulf Migratory Group and the Atlantic Migratory Group.

King mackerel from these two groups seasonally mix on the East Coast of Florida. For management and assessment purposes, a boundary between groups of king mackerel (Figure 1) was specified as the Volusia/Flagler County border on the Florida east coast in the winter (November 1 - March 31) and the Monroe/Collier County border on the Florida southwest coast in the summer (April 1 - October 31).

Spanish mackerel mix in south Florida but abundance trends along each coast of Florida are different indicating sufficient isolation between the two migratory groups. The boundary for Spanish mackerel is fixed at the Miami-Dade/Monroe County border on Florida's southeast coast (Figure 2). Allocations were established for recreational and commercial fisheries, and the commercial allocation was divided between net and hook-and-line fishermen.

Cobia

The following is taken directly from the "Assessment of cobia, *Rachycentron canadum*, in the waters of the U.S. Gulf of Mexico by Erik H. Williams (NOAA TECHNICAL MEMORANDUM NMFS-SEFSC-469, November 2001)":

"This assessment applies to cobia (*Rachycentron canadum*) located in the territorial waters of the U.S. Gulf of Mexico. Separation of the Gulf of Mexico and Atlantic Ocean is defined by the seaward extension of the Dade/Monroe county line in south Florida. Mixing of fish between the Atlantic and Gulf of Mexico occurs in the Florida Keys during winter months. Cobia annually migrate north in early spring in the Gulf to spawning grounds in the northern Gulf of Mexico, returning to the Florida Keys by winter.

Cobia (*Rachycentron canadum*), the only member of the family Rachycentridae in North America, is a widely distributed species of pelagic fish found worldwide, except the Eastern Pacific; in tropical, subtropical, and warm temperate waters (Shaffer and Nakamura 1989). In the U.S., cobia are found in the Atlantic Ocean from the Florida Keys to Massachusetts and throughout the Gulf of Mexico. Cobia exhibit seasonal migrations in the Atlantic and Gulf of Mexico. In the Atlantic Ocean cobia begin their spring migration north from wintering grounds in the Florida Keys, generally appearing by late spring and early summer in the poly/mesohaline areas of coastal Virginia and the Carolinas (Schwartz et al. 1981, Smith 1995). In the Gulf of Mexico, cobia migrate in early spring from their wintering grounds in the Florida Keys to the northeastern Gulf where they occur in the nearshore and coastal waters off northwestern Florida to Texas from March through October (Biesiot et al. 1994, Franks et al. 1999). In the Atlantic and Gulf of Mexico there is evidence of some cobia overwintering in deeper waters (100-125 m) off the Carolinas and northern Gulf (Franks et al. 1999, Joseph W. Smith personal communication).

Tagging studies have revealed migrations of fish in both directions between the northern Gulf of Mexico and the Carolinas, indicating some level of exchange of fish from the Gulf of Mexico and Atlantic Ocean (Franks et al. 1992, Franks and McBee 1994, Franks and Moxey 1996). A genetics study of mtDNA of cobia samples from the Atlantic

and Gulf of Mexico did not reveal differences (Hrincevich 1993). Despite the evidence of mixing and genetic similarity, Thompson (1993) suggested that cobia be managed based on a two stock hypothesis (Thompson 1996). The two stock approach was endorsed by the Mackerel Stock Assessment Panel in 1993 and is used for this analysis."

Previous assessment efforts support separation of Gulf and Atlantic Migratory Groups of cobia at the Miami-Dade/Monroe County line which is also used for Spanish mackerel. This separation has never been formally implemented through the Mackerel FMP and is included in Amendment 18 as an action item. Historical commercial catch data are shown in Table 1.

Table 1. Commercial landings (thousand pounds) and value (thousand dollars) of cobia by year and area.

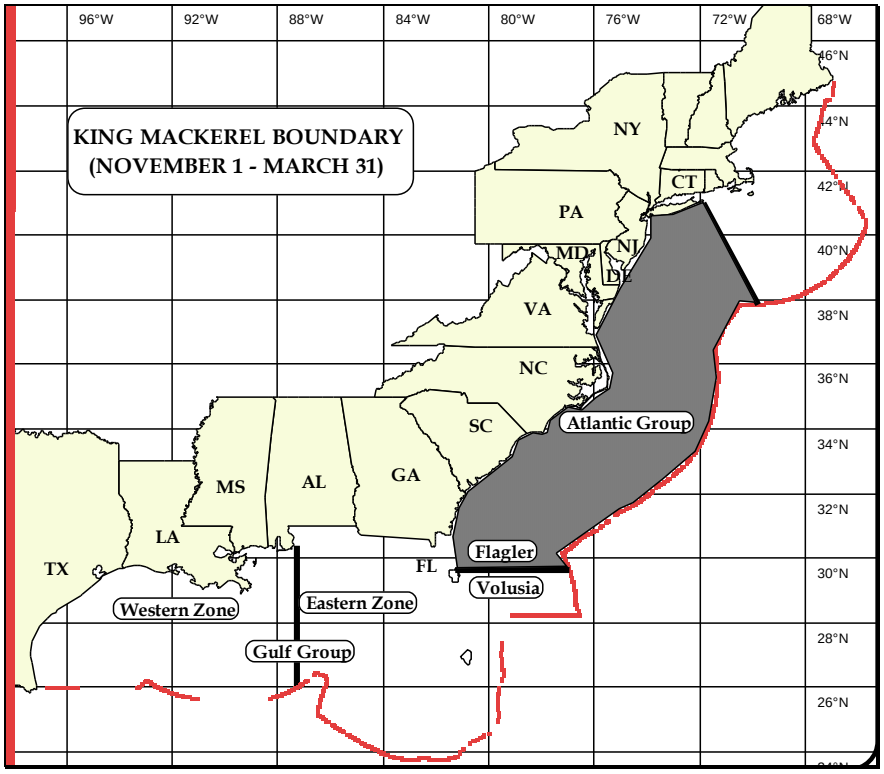
Cobia (Rachycentron canadum)											
Year	NE	NC-GA	FL ec	Atlantic	Fl wc	AL-TX	Gulf	All, pounds	All, 2008$	All, $/lb	All, 2008$/lb
1981	1	17	25	43	100	18	118	161	$150	$0.48	$0.93
1982	2	29	17	48	85	26	110	158	$156	$0.52	$0.98
1983	1	17	18	36	111	22	132	169	$193	$0.61	$1.14
1984	2	12	18	32	115	27	142	174	$216	$0.67	$1.24
1985	3	9	17	29	105	31	136	165	$248	$0.82	$1.50
1986	1	25	34	60	93	67	160	220	$358	$0.86	$1.63
1987	1	40	58	99	110	64	175	274	$497	$0.98	$1.82
1988	6	23	73	101	103	57	161	262	$510	$1.10	$1.95
1989	11	22	93	127	126	84	210	337	$666	$1.17	$1.98
1990	18	25	80	123	106	55	161	284	$603	$1.29	$2.12
1991	15	29	97	141	131	46	177	318	$702	$1.35	$2.21
1992	9	28	108	145	163	76	239	384	$908	$1.46	$2.37
1993	2	32	92	126	171	90	261	387	$935	$1.51	$2.41
1994	8	39	88	135	148	115	264	399	$991	$1.57	$2.48
1995	25	43	90	158	158	83	241	399	$1,027	$1.69	$2.58
1996	24	39	104	166	179	85	265	431	$1,127	$1.76	$2.62
1997	16	62	91	169	138	73	211	380	$981	$1.73	$2.58
1998	17	36	84	137	140	65	205	342	$966	$1.85	$2.82
1999	9	22	93	124	128	64	192	316	$933	$1.94	$2.95
2000	11	46	59	115	96	57	153	268	$721	$1.87	$2.69
2001	11	42	65	119	74	38	112	231	$627	$1.92	$2.71
2002	14	39	61	114	81	41	122	237	$676	$1.97	$2.85
2003	8	36	53	97	110	31	142	239	$690	$2.09	$2.89
2004	8	34	62	104	89	28	117	221	$614	$2.13	$2.78
2005	7	30	37	74	72	28	100	174	$445	$2.10	$2.56
2006	6	35	58	99	63	30	93	192	$462	$2.08	$2.40
2007	8	34	61	103	71	15	86	189	$501	$2.40	$2.65
2008	7	39	56	103	65	17	82	185	$437	$2.36	$2.36
5-yr ave	7	34	55	97	72	24	96	192	$492	$2.21	$2.55

Source: Vondruska (2010).

Table 3. Recreational and commercial landing of Atlantic cobia by year and area.

Year	Commercial	Recreational	Total
1986	60,000	466,635	526,635
1987	99,000	701,676	800,676
1988	101,000	627,182	728,182
1989	127,000	1,294,243	1,421,243
1990	123,000	589,042	712,042
1991	141,000	576,207	717,207
1992	145,000	1,087,402	1,232,402
1993	126,000	619,512	745,512
1994	135,000	542,924	677,924
1995	158,000	499,624	657,624
1996	166,000	691,714	857,714
1997	169,000	934,042	1,103,042
1998	137,000	850,925	987,925
1999	124,000	1,004,885	1,128,885
2000	115,000	700,309	815,309
2001	119,000	490,001	609,001
2002	114,000	637,943	751,943
2003	97,000	1,457,935	1,554,935
2004	104,000	1,121,571	1,225,571
2005	74,000	797,172	871,172
2006	99,000	879,657	978,657
2007	103,000	965,996	1,068,996
2008	103,000	1,053,825	1,156,825

Source: Commercial data from Vondruska (2010). Total landings from SEFSC data provided to SSC April 2010 meeting. Recreational = Total – Commercial.
Note: Atlantic does not include Monroe County, Florida.



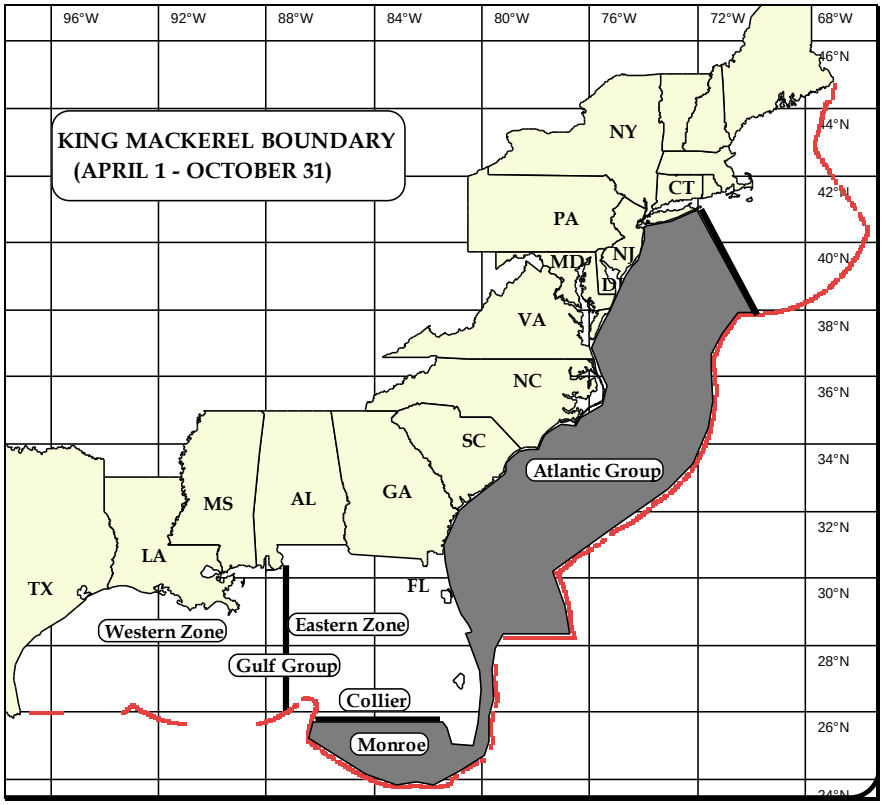


Figure 1. Seasonal boundary between Atlantic and Gulf Migratory Groups of king mackerel.

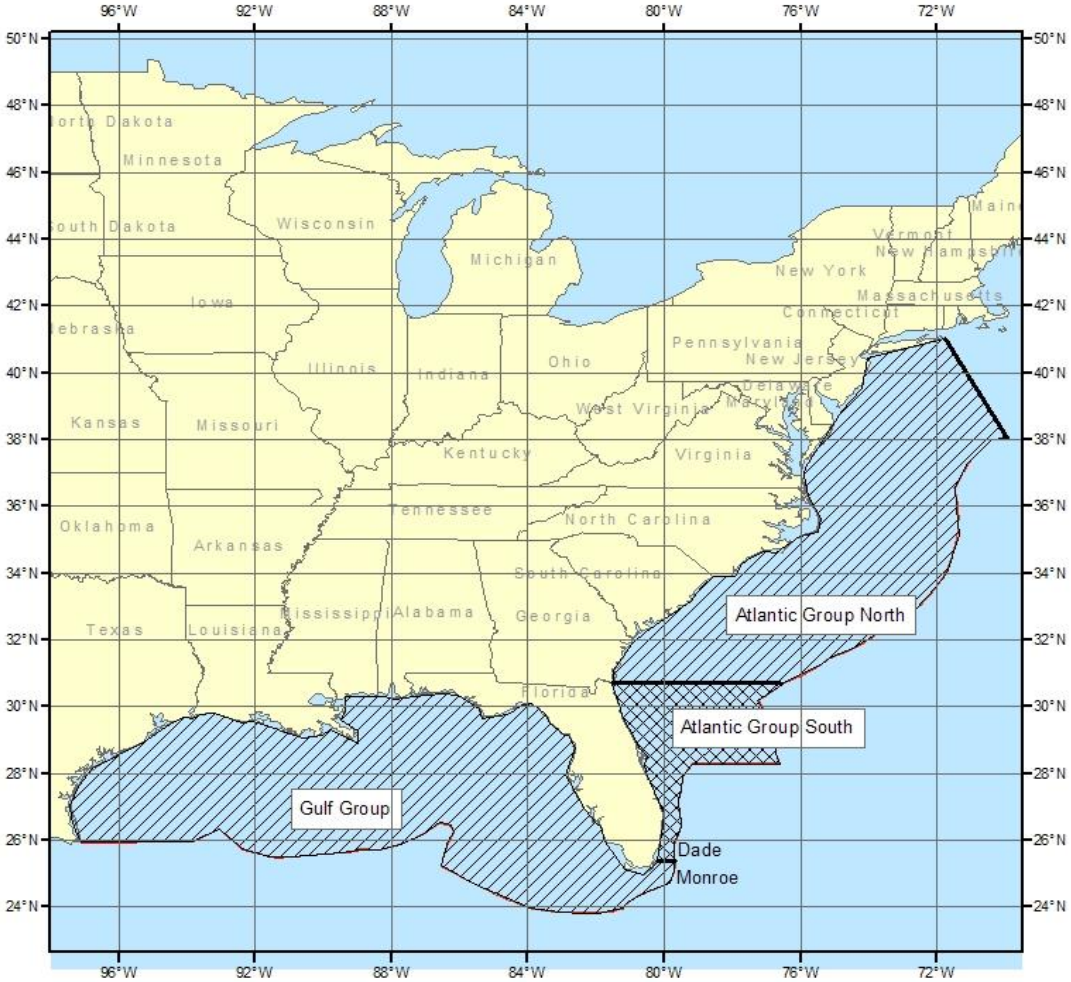


Figure 2. Fixed boundary between Atlantic and Gulf Migratory Groups of Spanish mackerel. Source: Council Staff.

3.2 Allocations

For the purpose of allocating a limited resource among users, the management plan has set ratios based on historic unregulated catches. The Atlantic Migratory Group of king mackerel is allocated with 62.9% to recreational fishermen and 37.1% to commercial fishermen. The Atlantic Migratory Group of Spanish mackerel is presently allocated 55% to commercial fishermen and 45% to recreational fishermen. For Gulf migratory group king mackerel the allocation is 68% recreational and 32% commercial. For Gulf group Spanish mackerel, the allocation is 57% commercial and 43% recreational.

Allocation alternatives are included for Atlantic Migratory Group Cobia.

3.3 Mixing Percentage

When the original king mackerel boundary was set, based on tagging data, the mix was 60% Gulf and 40% Atlantic. The Gulf and South Atlantic Councils agreed to count these fish as 100% Gulf fish to help rebuild the overfished Gulf migratory group. The most recent scientific information used in the SEDAR assessment indicated that the mixing rate is 50% Atlantic and 50% Gulf. The following tables and values are specified based upon this 50/50 mixing rate.

3.4 MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), AND ACT

The most recent assessments are used to specify these values for each of the species included in the fishery management unit. Actions and alternatives are included for each species.

4.0 ACTIONS

NOTE: These actions will be added to the Gulf Council actions after the June 2010 Council meetings. The IPT will produce a combined Amendment 18 document for the following Council meetings.

4.13 Action 13. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), and ACT levels for Atlantic Migratory Group king mackerel

Stock Status (SSC Review of SEDAR 16 at their December 2008 meeting)

The SSC approved the recent SEDAR 16 King Mackerel assessment as based on the best available science and advises that management measures be formulated in accordance with the base assessment model run. The SSC supports the conclusion of the review panel that the South Atlantic king mackerel stocks were **not overfished**. It is **uncertain, however, whether overfishing is occurring in the South Atlantic stock or not, but if it is, it is occurring at a low level.**

Discussion leading to this conclusion centered on three major topics that arose from the assessment and the SEDAR Review Panel report(s). First, the SSC focused on comments by the Review Panel where they concluded that the base model run was a plausible representation of the king mackerel population; however, the review panel also requested alternative model runs that were necessary to understand more fully the underlying uncertainty of the assessment. In particular, the model was very sensitive to specific fishery-dependent and independent abundance indices and their relative weighting schemes. For example, two alternative model runs were conducted with different treatments of the indices suggested by the Review Panel and resulted in substantially reduced probability of overfishing the stock at higher yields in comparison to the base run. The SSC believed that the base run provided more realistic results with respect to overfishing probabilities, and recommends that it be used as the basis for management. Second, and related to this point, the Review Panel recommended that decision tables be prepared to capture the uncertainty under various model scenarios. The SSC reviewed these tables (prepared by the assessment team) but commented that the Review Panel provided little guidance on how to compare alternative approaches to the base case. Third, the SSC discussed the failure of the Stock Synthesis 3 (SS3) model to provide management benchmarks under the spatial constraints of the terms of reference. The Review Panel agreed that the Stock Synthesis 3 formulation allows both the Gulf and South Atlantic king mackerel stocks to be modeled while allowing mixing between the stocks during the winter. However, the SS3 model was ultimately not used because it was unclear whether the model was converging and it was not possible to estimate stock-specific benchmarks as required by the terms of reference. Hence, the assessment proceeded using VPAs to independently model Gulf and South Atlantic migratory groups under a 50:50 mixing scenario. The SSC suggests that, in the future, if the two stocks are to be modeled separately, the SS3 model or another statistical model be used.

The SSC briefly discussed research recommendations arising from the SEDAR process and found them to be well-documented. In particular, the SSC believes that stronger fishery-independent abundance indices are needed to improve future assessments. In addition, the SSC agrees that a

full assessment of king mackerel would benefit from better access to catch information from the Mexican fishery.

The MSY, MSST, OFL and ABC will come from each SEDAR assessment and the recommendations of the SSC as they review each assessment. The SSC has approved the SEDAR assessment and has provided specific OFL and ABC recommendations. Information from the SEDAR assessment concerning MSY, OFL and ABC is shown in Table 4.

4.13.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST) and Maximum Fishing Mortality Threshold (MFMT)

The Council has determined that the value for MSY is the value of yield at F_{MSY} from the most recent stock assessment. Currently MSY = 10.4 million pounds. Based on the SEDAR 16 assessment, MSY = 8.964 million pounds (Table 4). Based on updated projections, MSY = 9.357-12.836 million pounds (Table 5b).

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST = 0.85(B_{MSY}) with no poundage estimated. Based on the SEDAR 16 assessment, MSST = 1,827.5 billion hydrated eggs (Table 4).

The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT = F_{MSY} = $F_{30\%SPR}$ with no poundage estimated. Based on the SEDAR 16 assessment, MFMT = F_{MSY} = $F_{30\%SPR}$ = 0.256 (Table 4).

4.13.2 Overfishing Level (OFL)

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: "The OFL for king mackerel is 12.8359 million pounds (corresponds to yield at $F_{30\%SPR}$, the accepted MSY proxy from the last stock assessment)." Note: This is the expected yield in 2011 (Table 5b).

Table 4. Specific management criteria for Atlantic Migratory Group King Mackerel from SEDAR 16.

Specific Management Criteria for Atlantic Migratory Group King Mackerel from SEDAR 16				
	Current		Proposed	
Criteria	Definition	Value	Definition	Value
M (natural mortality rate)		0.15	Base of Lorenzen M	0.1603
Biomass References				
MSY (Maximum Sustainable Yield)	Yield at F_{MSY}	10.4 MP	Yield at F_{MSY}	8.964 MP
OY (Optimum Yield)	Yield at $F_{40\%SPR}$	unknown	Yield at F_{OY}	OY (65%$F_{30\%SPR}$)=7.70 MP
				OY (75%$F_{30\%SPR}$)=8.38 MP
				OY (85%$F_{30\%SPR}$)=8.67 MP
MSST (Minimum Stock Size Threshold)+	0.85(B_{MSY})	unknown	=[(1-M) or 0.5 whichever is greater]*BMSY	1827.5
SSB_{MSY} = $SSB_{F30\%SPR}$				2175.0
$SSB_{CURRENT}$ = SSB_{2006}				2433.0
Fishing Mortality Rate References				
F_{MSY}*		unknown	F_{MSY}	unknown
$F_{30\%SPR}$			$F_{30\%SPR}$	0.256
MFMT (Maximum Fishing Mortality Threshold)	F_{MSY} = $F_{30\%SPR}$	unknown	F_{MSY} = $F_{30\%SPR}$	0.256
F_{OY}	$F_{40\%SPR}$		65%, 75% OR 85% F_{MSY}	65%$F_{30\%SPR}$=0.17
				75%$F_{30\%SPR}$=0.19
				85%$F_{30\%SPR}$=0.22
$F_{CURRENT}$			Fishing mortality rate in 2006=F_{2006}	0.258
Probability value for evaluating stock status				
Fishing Mortality Rate References	50% Fcurr>Fmsy=overfishing			
Biomass References	50% Bcurr<MSST=overfished			
Overfishing Ratio				
$F_{CURRENT}$/MFMT			$F_{CURRENT}$/MFMT = F_{2006}/$F_{30\%SPR}$=0.258/0.256	1.01
Overfished Ratio				
$SSB_{CURRENT}$/MSST			$SSB_{CURRENT}$/MSST=SSB_{2006}/MSST	1.331
$SSB_{CURRENT}$/SSB_{MSY}			$SSB_{CURRENT}$/SSB_{MSY}=SSB_{2006}/$SSB_{F30\%SPR}$	1.119
Projections				
Average yields 2011-2016			Based on 65%$F_{30\%SPR}$ =	7.426
			Based on 75%$F_{30\%SPR}$ =	7.939
			Based on 85%$F_{30\%SPR}$ =	8.356

4.13.3 Allowable Biological Catch (ABC) Control Rule and ABC

ABC is recommended by the Scientific and Statistical Committee and specified by the Council. The SSC provided an ABC Control Rule and value at their April 2010 meeting. Prior to the April 2010 meeting, the Council was using the projections averaged over 2011-2016 for $F_{65\%SPR30}$ and $F_{85\%SPR30}$ as a potential ABC range (Table 5a). This would have resulted in ABC = 7.426 – 8.356 million pounds. The current ABC = 8.9 – 13.3 million pounds.

Table 5a. Projected yields (landings in million pounds) under different fishing mortality rate (F) strategies.
Source: SEDAR 16.

Projected yields (landings in million pounds) under different F strategies (SEDAR 16).						
Atlantic Migratory Group King Mackerel						
Year	F30%SPR	F40%SPR	Fcurrent	F 65% SPR30	F 75% SPR30	F 85% SPR30
2007	9.277	9.277	9.277	9.277	9.277	9.277
2008	9.453	6.669	9.504	6.391	7.291	8.17
2009	9.248	6.956	9.288	6.706	7.498	8.236
2010	9.154	7.24	9.184	7.017	7.718	8.344
2011	9.132	7.522	9.156	7.319	7.943	8.477
2012	8.86	7.476	8.88	7.295	7.851	8.314
2013	8.788	7.549	8.805	7.379	7.893	8.309
2014	8.794	7.665	8.81	7.507	7.985	8.369
2015	8.737	7.672	8.75	7.52	7.979	8.338
2016	8.704	7.685	8.717	7.538	7.981	8.327
Avg 2011-2016	8.836	7.595	8.853	7.426	7.939	8.356

New projections, provided on March 16, 2010, provide updated estimated yield streams as follows:

Table 5b. Projected yields (landings in million pounds) under different fishing mortality rate (F) strategies.
Source: SEFSC Updated Projections, March 2010.

Table 3. Expected median yield (million lbs) under constant fishing mortality rate projection.

Fcte	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
F30%SPR	12.8359	11.64758	10.88326	10.28744	9.942731	9.727974	9.672907	9.531938	9.493392	9.436123	9.356828
F40%SPR	9.200441	8.89978	8.730176	8.564978	8.452643	8.418502	8.429515	8.420705	8.426211	8.404185	8.395374
Fcurrent	13.46586	12.03855	11.14868	10.42401	10.08921	9.867841	9.774229	9.623348	9.538546	9.480176	9.374449
Fmax	24.91189	17.63877	14.03524	12.00881	11.03744	10.52093	10.25771	10.09031	9.959251	9.805066	9.654185
F0.1	11.62445	10.75441	10.22577	9.754405	9.536344	9.374449	9.338106	9.246696	9.183921	9.138767	9.124449
0.85F30%SPR	10.45925	9.852423	9.562775	9.232379	9.085903	8.973568	8.937225	8.914097	8.907489	8.865639	8.803965
0.75F30%SPR	9.373348	9.014317	8.875551	8.674009	8.564978	8.508811	8.504405	8.492291	8.512115	8.491189	8.462555
0.65F30%SPR	8.360132	8.1663	8.150881	8.01652	7.968062	7.952643	7.996696	7.984581	8.015419	8.013216	7.959251

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group

king mackerel.

Alternative 2. Establish ABC based on the SSC's ABC control rule.

The South Atlantic Council's Scientific and Statistical Committee developed an ABC Control rule (**Attachment 1**) for assessed stocks based on the guidance provided by the Council on the level of risk (10-40%). The ABC values for the years 2011, 2012 and 2013, as recommended by the SSC based on the SSC control rule, are shown in Table 6. An average values has been added for discussion purposes. The SSC expects to receive an updated assessment prior to providing an ABC for 2014 onwards. The current SEDAR schedule through 2015 does not include Atlantic migratory group king mackerel.

Table 6. Atlantic Migratory Group King Mackerel ABC recommendations from the Scientific and Statistical Committee and current allocations.

Year	ABC	Recreational (62.9%)	Commercial (37.1%)
2011	10.95	6.89	4.06
2012	10.36	6.52	3.84
2013	10.06	6.33	3.73
Average	10.46	6.58	3.88

From the ABC control rule the P* for king mackerel equals 27.5%. Looking at Table 1 in document A28_Updated MackerelProjs3-17-10.pdf (Attachment 28 in the SSC briefing package; **Attachment 2**) we find a value of 11 million pounds corresponding to a probability of overfishing of 28% for 2011. However, the SSC decided not to use this value since the P* value (28%) is a bit higher than 27.5% (higher risk of overfishing than established by the control rule). The group decided to determine ABC for the period 2011-2020 through a linear interpolation of TAC values from 27.5% to 28.0%. ABC = _____

The Council is also considering the following non-SSC Control Rules:

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a. ABC=65%OFL

Alternative 4b. ABC=75%OFL

Alternative 4c. ABC=85%OFL

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a. ABC=yield at 65%MFMT

Alternative 5b. ABC=yield at 75%MFMT

Alternative 5c. ABC=yield at 85%MFMT

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing (P*).

Alternative 6a. ABC=X% of OFL. The X% is based upon P* equals .20.

Alternative 6b. ABC=X% of OFL. The X% is based upon P* equals .30.

Alternative 6c. ABC=X% of OFL. The X% is based upon P* equals .40.

Alternative 6d. ABC=X% of OFL. The X% is based upon P* equals .50.

4.13.4 Optimum Yield (OY)

Currently OY = the yield from fishing at a fishing mortality rate equal to 40%Spawning Potential Ratio; however, a value was not previously estimated. Based on the SEDAR 16 assessment and the Council's actions on other species, the following options are likely (Tables 4 and 5a).

Alternative 1. No action. Currently OY = yield at $F_{40\%SPR}$ with no poundage estimated. However, using the updated projections yields a range of 8.40 – 9.20 million pounds.

Alternative 2. OY = 65% of the yield at $F_{30\%SPR}$ = 7.96 – 8.36 million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

Alternative 3. OY = 75% of the yield at $F_{30\%SPR}$ = 8.46 – 9.37 million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

Alternative 4. OY = 85% of the yield at $F_{30\%SPR}$ = 8.80 – 10.46 million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

The following alternative has been added for consideration:

Alternative 5. OY = yield at $F_{30\%SPR}$ = 9.36 – 12.84 million pounds based on projections of expected median yields under a constant fishing mortality rate over the years 2011 through 2021.

4.13.5 Annual Catch Limit (ACL)

The ACL is equivalent to Total Allowable Catch (TAC) as used in the past. Based on projections provided by the NMFS Southeast Fisheries Science Center after the SEDAR assessment (Table 5a), the updated projections (Table 5b), and the SSC recommendations (Table 6), the Council is considering the following options. Landings data are provided in Table 5 to assist in choosing ACL.

The Council is not considering changes to the existing allocations for king mackerel. Applying the existing allocations results in sector-specific ACLs as discussed below.

The Mackerel Advisory Panel considered state by state quotas but instead recommended that the commercial quota be allocated into two regions: NC/SC and GA/FL. The Mackerel Advisory Panel recommended an ACL = 8.356 million pounds based on the values in Table 5a. They will have an opportunity to review the new projections and alternatives after the September Council meeting.

Alternative 1. No action. Currently TAC or ACL =10.0 million pounds based on an ABC of 8.9 - 13.3 million pounds.

Discussion

The recreational allocation (62.9%) is 6.30 million pounds (recreational sector ACL) and the commercial allocation (37.1%) is 3.71 million pounds (commercial sector ACL). The recreational allocation was exceeded in 2007/08 with landings of 6.845 million pounds versus the allocation of 6.30 million pounds (Table 7). This resulted in the ACL/TAC being exceeded by 460,000 pounds. The commercial allocation was exceeded in 2006/07 and 2008/09 with landings of 3.731 million pounds and 4.211 million pounds respectively. ACL/TAC was not exceeded in either fishing year.

Alternative 2. ACL = ABC = 10.46 million pounds which is the average of the ABC values for 2011-2013 recommended by the SSC.

Discussion

The recreational allocation (62.9%) would be 6.58 million pounds (recreational sector ACL) and the commercial allocation (37.1%) would be 3.88 million pounds (commercial sector ACL). The recreational allocation would have been exceeded in 2007/08 with landings of 6.845 million pounds versus the potential allocation of 6.58 million pounds (Table 7). This would have equaled the ACL/TAC. The commercial allocation would have been exceeded in 2008/09 with landings 4.211 million pounds versus the potential allocation of 3.88 million pounds. ACL/TAC would not have been exceeded.

Alternative 3. ACL = ABC = 10.06 million pounds which is the lowest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Discussion
The recreational allocation (62.9%) would be 6.33 million pounds (recreational sector ACL) and the commercial allocation (37.1%) would be 3.73 million pounds (commercial sector ACL). The recreational allocation would have been exceeded in 2007/08 with landings of 6.845 million pounds versus the potential allocation of 6.33 million pounds (Table 7). This would have resulted in the ACL/TAC being exceeded by 400,000 pounds. The commercial allocation would have been exceeded in 2006/07 and 2008/09 with landings of 3.731 million pounds and 4.211 million pounds respectively. ACL/TAC would not have been exceeded.

Alternative 4. ACL = ABC = 10.36 million pounds which near the middle value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Discussion
The recreational allocation (62.9%) would be 6.52 million pounds (recreational sector ACL) and the commercial allocation (37.1%) would be 3.84 million pounds (commercial sector ACL). The recreational allocation would have been exceeded in 2007/08 with landings of 6.845 million pounds versus the potential allocation of 6.52 million pounds (Table 7). This would have resulted in the ACL/TAC being exceeded by 100,000 pounds. The commercial allocation would have been exceeded in 2008/09 with landings of 4.211 million pounds versus the potential allocation of 3.84 million pounds. ACL/TAC would not have been exceeded.

Alternative 5. ACL = ABC = 10.95 million pounds which is the highest value within the 2011-2013 recommendations (10.06 – 10.95 million pounds).

Discussion
The recreational allocation (62.9%) would be 6.89 million pounds (recreational sector ACL) and the commercial allocation (37.1%) would be 4.06 million pounds (commercial sector ACL). The recreational allocation would not have been exceeded (Table 7). The commercial allocation would have been exceeded in 2008/09 with landings of 4.211 million pounds versus the potential allocation of 4.06 million pounds. ACL/TAC would not have been exceeded.

Alternative 6. ACL = X% of ABC = _____ million pounds.

Discussion
The Council would need to provide guidance on what percentage to use.

Table 7. Summary of quota management and harvest for Atlantic Migratory Group King Mackerel.

					Annual Harvest Levels		
Fishing Year	ABC Range[1] (lbs)	TAC (lbs)	Recreational Allocation/Quota[2] (lbs. /numbers)	Commercial Allocation	Com	Rec	Total[3]
1986/87	6.9-15.4	9.68		3.59 (PS=0.40)	2.84	5.98	8.82
1987/88	6.9-15.4	9.68	6.09	3.59 (PS=0.40)	3.453	3.905	7.357
1988/89	5.5-10.7	7	4.4	2.6 (PS=0.40)	3.091	4.881	7.972
1989/90	6.9-15.4	9	5.66/666,000	3.34	2.635	3.4	6.036
1990/91	6.5-15.7	8.3	5.22/601,000	3.08	2.676	3.718	6.394
1991/92	9.6-15.5	10.5	6.60/735,000	3.9	2.516	5.822	8.338
1992/93	8.6-12.0	10.5	6.60/834,000	3.9	2.227	6.251	8.477
1993/94	9.9-14.6	10.5	6.60/854,000	3.9	2.018	4.438	6.456
1994/95	7.6-10.3	10	6.29/709,000	3.71	2.197	3.728	5.925
1995/96	7.3-15.5	7.3	4.60/454,000	2.7	1.87	4.153	6.023
1996/97	4.1-6.8	6.8	4.28/438,525	2.52	2.702	3.99	6.692
1997/98	4.1-6.8	6.8	4.28/438,525	2.52	2.684	5.158	7.843
1998/99	8.4-11.9	8.4	5.28/504,780	3.12	2.549	4.268	6.816
1999/00	8.9-13.3	10	6.30/601,338	3.71	2.238	3.424	5.662
2000/01	8.9-13.3	10	6.30/601,338	3.71	2.073	5.338	7.411
2001/02	8.9-13.3	10	6.30/601,338	3.71	2.017	4.037	6.054
2002/03	8.9-13.3	10	6.30/601,338	3.71	1.712	4.2664	5.978
2003/04	8.9-13.3	10	6.30/601,338	3.71	1.958	4.075	6.033
2004/05	8.9-13.3	10	6.30/601,338	3.71	2.549	3.313	5.862
2005/06	8.9-13.3	10	6.30/601,338	3.71	2.15	3.961	6.111
2006/07	8.9-13.3	10	6.30/601,338	3.71	3.731	3.775	7.506
2007/08	8.9-13.3	10	6.30/601,338	3.71	3.615	6.845	10.460
2008/09	8.9-13.3	10	6.30/601,338	3.71	4.211	3.905	8.116

Notes & Sources:

[1]The range has been defined in terms of acceptable risk of achieving the FMP's fishing mortality rate target: the Panel's best estimate of ABC has been intermediate to the end-point of this range

[2]Recreational quota in numbers is the allocation divided by an estimate of annual average weight.

[3]Sums within rows may not appear to equal the total value shown due to rounding of numbers before printing.

[4]2002-03 recreational landings, in pounds, were estimated from the average of 1999-2001 landings.

Source: Data from 1986/87 - 2005/06 from Table 2.5.4 in SEDAR 16. Data for 2007/08 & 2008/09 from SEFSC Updated Projections (3/15/10). Data for 2006/07 from Table 1, SEDAR 16 SAR Section 1.

Note: The updated landings for 2006/08 - 2008/09 include the 50% split of the catch in the mixing area -- Monroe-Volusia, FL counties from Nov 1 to March 31.

4.13.6 Annual Catch Target (ACT)

Action 13a. Commercial Sector ACT

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

Table 8. The commercial sector ACT for each of the alternatives. Values are in lbs whole weight.
Note: This table will be completed once the Council chooses the preferred ACL alternative.

Species	Preferred Commercial ACL	Commercial Sector ACT		
		ACT Alt. 2; ACT=ACL	ACT Alt. 3; ACT=90%(ACL)	ACT Alt. 4; ACT=80%(ACL)
Atlantic migratory group king mackerel				

Action 13b. Recreational Sector ACT

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group king mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Table 9. Proportional Standard Errors (PSEs) for Atlantic migratory group king mackerel from numbers estimates (A+B1) for all modes. Obtained from http://www.st.nmfs.noaa.gov on May 12, 2010.

Species	2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
Atlantic migratory group king mackerel	5.6	5.8	6.1	5.6	5.8	6.3	6.5	6.2	6.1

Table 10. The recreational ACT for each of the alternatives. Values are in lbs whole weight. *Note: This table will be completed once the Council chooses the preferred ACL alternative.*

Species	Preferred Private Recreational Sector ACL	Recreational Sector ACT		
		ACT Alt. 2; ACT=75%(ACL)	ACT Alt. 3; ACT=75%(ACL)	ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]
Atlantic migratory group king mackerel				

4.14 Action 14. Specify Accountability Measures (AMs) for Atlantic Migratory Group king mackerel

Note: Accountability Measures (AMs) include in-season measures that are intended to limit each sector to their ACL/ACT and post-season measures to make adjustments if the ACL/ACT is exceeded. In-season measures are equivalent to management measures (regulations) that have been set in the past.

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use the most recent three-year running average.

Advisory Panel Motions (2009):
AP MOTION #4: RECOMMEND THAT AMENDMENT 18 CREATE A SEPARATE CATEGORY FOR RECREATIONAL BAG LIMIT SALES SO THEY DO NOT COUNT AGAINST THE COMMERCIAL QUOTA [INTENT THAT IF NMFS CANNOT CREATE THIS CATEGORY THEN PROHIBIT BAG LIMIT SALE]
MOTION WITHDRAWN

AP MOTION #5: NO SALE OF RECREATIONALLY CAUGHT FISH
APPROVED 6 TO 2

AP MOTION #6: SUGGEST REDUCING THE BAG LIMIT RATHER THAN REDUCING THE LENGTH OF THE FOLLOWING FISHING YEAR
APPROVED BY AP WITH 1 OBJECTION

AP MOTION # 7: STATUS QUO ON RECREATIONAL MANAGEMENT CHANGES [INTENT TO REEXAMINE AFTER A YEAR WHEN POTENTIAL EFFORT SHIFT FROM SNAPPER GROUPER COULD TAKE PLACE]
APPROVED BY AP

AP MOTION #8: REDUCE THE COMERCIAL KING MACKEREL MINIMUM SIZE LIMIT FROM 24" TO 22" FORK LENGTH
APPROVE BY AP

Older Committee/Council/Advisory Panel Motions:
MOTION: DELETE OPTIONS A & B AND ADD OPTION E.
APPROVED BY SAFMC COMMITTEE (6/04)
APPROVED BY GMFMC COMMITTEE (6/04)

SAFMC AP MOTION: INCREASE 45 INCHES TO 50 INCHES
APPROVED BY SAFMC AP (6/04)
SAFMC COMMITTEE: ADD A NEW OPTION WITH 50 INCHES
APPROVED BY SAFMC COMMITTEE (6/04)

~~**Option a.** Change the bag limit for Atlantic group king mackerel to 3 for NY-FL (Note: Under this bag limit, the recreational catch would be expected to exceed the recreational allocation.)~~

~~**Option b.** Change the bag limit for Atlantic group king mackerel to 3 for NY-FL with one fish greater than 45-inch fork length~~

Alternative 3. Option c. Examine the impacts of release mortality resulting from increasing the minimum size limit from 20 inches fork length to 24 inches fork length. Evaluate whether the minimum size limit should be reduced to 20 inches fork length.

Alternative 4. Option d. Status Quo - the bag limit for Atlantic group king mackerel would remain at 3 NY-GA, 2 FL (Note: Under this bag limit, the recreational catch was 3.775 million pounds in 2006/2007, 6.845 million pounds in 2007/2008, and 3.905 million pounds in 2008/2009.)

Alternative 5. Option e. Include within the existing bag limit, one fish >45 inches FL.

Alternative 6. Option f. Include within the existing bag limit, one fish >50 inches FL.

Alternative 7. Option g. Prohibit **bag limit** sales of ~~recreationally caught~~ Atlantic migratory group king mackerel.

Alternative 8. TRIP LIMITS FOR ATLANTIC GROUP KING MACKEREL
MOTION: BOTH COMMITTEES APPROVED DELETING A AND KEEPING B (6/04)

~~**a. Status Quo - The possession limits are as follows:**~~

~~April 1 - March 31 NY/CT to Volusia/Flagler~~	~~3,500 pounds~~
~~April 1 - October 31 Volusia/Flagler to Brevard/Volusia~~	~~3,500 pounds~~
~~April 1 - October 31 Brevard/Volusia to Dade/Monroe~~	~~75 fish~~
~~April 1 - October 31 Monroe County~~	~~1,250 pounds~~

b. Modify the bycatch allowances for the shark drift net fishery to:

1. 25 fish per vessel per trip from April 1 through November 15
2. 20 fish per vessel per trip
3. 4 fish per person per trip
4. The 25 fish per vessel per trip from April 1 through November 15 would apply only to vessels that have a history of observer activity and in the area from St. Lucie Inlet, Florida to the Florida/Georgia border
5. Status quo - the possession limit remains at 2 fish per person per trip

SAFMC AP MEMBER REQUESTED A LIMIT ON NUMBER OF SHARK DRIFT NET VESSELS (6/06)

New alternatives to consider payback of any overage:

Alternative 9. Commercial payback of any overage.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.

Alternative 10. Recreational payback of any overage from one year to the next.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.

4.15 Action 15. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), and ACT levels for Atlantic Migratory Group Spanish mackerel

Stock Status (SSC Review of SEDAR 17 at their December 2008 meeting)

There was significant discussion about the review of the Spanish mackerel assessment. The two major sources of uncertainty in the assessment are the historical recreational catches and the amount of mackerel bycatch in the shrimp fishery. Unfortunately, the uncertainty in these data cannot be decreased with additional research. The models must simply deal with this uncertainty. One way to assess the impact of some of this uncertainty is to conduct sensitivity runs. The point estimates for fishing mortality, biomass, Fmsy, and Bmsy were quite sensitive to the assumptions being examined via the sensitivity runs. However, the ratio of current fishing mortality to Fmsy appeared to be robust to the sensitivity runs performed in the Review Workshop and was in agreement with the results of the ASPIC biomass dynamic model. As such, it was determined that the stock was **not experiencing overfishing**. There was some question as to whether this robustness would hold over a wider range of sensitivity runs. The ratio of current biomass to Bmsy, however, was quite sensitive to the various runs, and as such, the **model could not reliably determine whether the stock was overfished or not. There was some discussion as to the overall robustness of the ratios, but the SSC consensus was to agree with the findings of the Review Panel.**

It was noted the even though the model could estimate the steepness parameter for the stock-recruit curve, the Review Panel expressed concern over its uncertainty. The SSC noted that we will likely never have precise estimates of such parameters and must make decisions despite this uncertainty.

The SSC briefly discussed research recommendations arising from the SEDAR process and found them to be well-documented. In particular, the SSC believes that stronger fishery-independent abundance indices are needed to improve future assessments.

The MSY, OFL and ABC will come from each SEDAR assessment and the recommendations of the SSC as they review each assessment. The SSC has approved the SEDAR assessment and has provided MSY, OFL and ABC recommendations. Information from the SEDAR assessment concerning MSY, OFL and ABC is shown in Table 11.

The Council will set OY and potential values are shown in Table 11.

4.15.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST), and Maximum Fishing Mortality Threshold (MFMT)

The Council has determined that the value for MSY is the value from the most recent stock assessment. Currently MSY = 10.4 million pounds. Based on the SEDAR 17 assessment, MSY = 11.461 million pounds (Table 11).

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST = 0.85(B_{MSY}) with no poundage estimated. Based on the SEDAR 17 assessment, MSST = 8,085 metric tons (Table 11).

The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT = F_{MSY} = $F_{30\%SPR}$ with no poundage estimated. Based on the SEDAR 17 assessment, MFMT = F_{MSY} = 0.371 (Table 11).

4.15.2 Overfishing Level (OFL)

The Scientific and Statistical Committee provided the following OFL recommendation at their April 2010 meeting: Since no estimate of MSY is available for Spanish mackerel, the SSC decided to develop ABC recommendations based on landings data. Based on the SEDAR 17 review panel recommendation that overfishing was not occurring, the SSC decided to bypass the OFL estimate and recommend ABC as the median of landings over the last 10 years.

The Council will need to develop an OFL recommendation.

Table 11. Spanish mackerel status determination criteria.

Spanish Mackerel Status Determination Criteria (SEDAR 17; Addendum T1.16)*			
Quantity	**Estimate**		
F_{MSY}	0.371		
$F_{30\%}$	0.54		
$F_{40\%}$	0.38		
B_{MSY} (MT)	33743		
SSB_{MSY} (MT)	12438		
MSST (MT)	8085		
MSY (MP)	11.461		
Overfishing Ratio			
F_{2007}/F_{MSY}	0.872		
Overfished Ratio			
$SSB_{2007}/MSST$	0.701		
SSB_{2007}/SSB_{MSY}	0.456	**Allocations (45%Rec:55%Com)**	
Projections		**Rec**	**Com**
Yield @ 65%F_{MSY} (MP)	10.608	4.774	5.834
Yield @ 75%F_{MSY} (MP)	11.051	4.973	6.078
Yield @ 85%F_{MSY} (MP)	11.320	5.094	6.226

*The Review Panel did not accept the base assessment model as appropriate for making biomass determinations and did not accept estimates of stock abundance, biomass, and exploitation rates, due to concerns about robustness of the assessment to uncertainty in inputs and model assumptions. Conclusions about biomass benchmarks are largely uncertain and should be viewed with extreme caution. In light of the uncertainty in the assessment results, the Review Panel suggests that the Spanish mackerel assessment be re-evaluated within a timeframe which allows for necessary management advice.

4.15.3 Allowable Biological Catch (ABC) Control Rule and ABC

ABC is recommended by the Scientific and Statistical Committee and specified by the Council. The SSC provided an ABC Control Rule and value at their April 2010 meeting. Prior to the April 2010 meeting, the Council was using the projections of yield at various portions of the yield at MSY as the ABC range (Table 11). This results in ABC = 10.608 – 11.320 million pounds. The current ABC = 5.7 – 9.0 million pounds.

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group Spanish mackerel.

Alternative 2. Establish ABC based on the SSC's Data Poor ABC control rule.
The SSC decided to develop OFL for each species based on median of landings for 1999 to 2008. From there, they will apply the ABC control rule for all the species together for each species grouping to develop the ABC reduction level. The results of the ABC control rule will be

multiplied by the OFL to determine the reduction to the OFL for the grouping to each individual species. Each ABC would start at 35% (0% for unknown depletion, 15% because not forage or habitat, __% the appropriate PSA score, 20% out of 25% for certainty of OFL level) of OFL. The variability in the ABC will be that they will have to use the PSA for each species and add the appropriate percent to the ABC that will come up with the appropriate level. The range of ABC for each data poor species will be 35% to 55% of OFL. This approach will be revisited species by species as more data become available. This is considered the "Triage Approach" for the snapper grouper data poor species. Current species exceptions are golden tilefish, yellow tail snapper, wreckfish, and amberjack. Since the Council is following the red porgy rebuilding plan, they won't be included in this data poor snapper grouper analysis.

Since no estimate of MSY is available for Spanish mackerel the SSC decided to develop ABC recommendations based on landings data. Based on the SEDAR 17 review panel recommendation that overfishing was not occurring, the SSC decided to bypass the OFL estimate and recommend ABC as the median of landings over the last 10 years. Therefore, ABC for Spanish mackerel = 4,913,254 pounds.

Table 12. Atlantic Migratory Group Spanish Mackerel ABC recommendation from the Scientific and Statistical Committee and current allocations.

Year	ABC	Recreational (45%)	Commercial (55%)
2011	4.91	2.21	2.70

The Council is also considering the following non-SSC Control Rules:

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a. ABC=65%OFL

Alternative 4b. ABC=75%OFL

Alternative 4c. ABC=85%OFL

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a. ABC=yield at 65%MFMT

Alternative 5b. ABC=yield at 75%MFMT

Alternative 5c. ABC=yield at 85%MFMT

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing (P*).

Alternative 6a. ABC=X% of OFL. The X% is based upon P* equals .20.

Alternative 6b. ABC=X% of OFL. The X% is based upon P* equals .30.

Alternative 6c. ABC=X% of OFL. The X% is based upon P* equals .40.

Alternative 6d. ABC=X% of OFL. The X% is based upon P* equals .50.

4.15.4 Optimum Yield (OY)

Currently OY = the yield from fishing at a fishing mortality rate equal to 40%Spawning Potential Ratio; however, a value was not previously estimated. Based on the SEDAR 17 assessment and the Council's actions on other species, the following options are likely (Table 11).

Alternative 1. No action. Currently OY = yield at $F_{40\%SPR}$ with no poundage estimated. Based on the SEDAR 17 assessment, the yield at $F_{40\%SPR}$ is 11,458,000 pounds.

Alternative 2. OY = 65% of the yield at F_{MSY} = 10.608 million pounds.

Alternative 3. OY = 75% of the yield at F_{MSY} = 11.051 million pounds.

Alternative 4. OY = 85% of the yield at F_{MSY} = 11.320 million pounds.

The following alternative is added for consideration:

Alternative 5. OY = the yield at $F_{30\%SPR}$ = 10.565 million pounds.

Alternative 6. OY = the yield at F_{max} = 6.598 million pounds.

4.15.5 Annual Catch Limit (ACL)

The ACL is equivalent to Total Allowable Catch (TAC) as used in the past. Based on projections from SEDAR 17 (Table 11) and the SSC recommendations (Table 12), the Council is considering the following options:

Alternative 1. No action. Currently TAC or ACL =7.04 million pounds based on an ABC of 5.7 – 9.0 million pounds.

Discussion

The recreational allocation (45%) would be 3.168 million pounds (recreational sector ACL) and the commercial allocation (55%) is 3.872 million pounds (commercial sector ACL).

Alternative 2. ACL = ABC =4.91 million pounds which is the ABC recommended by the SSC\.

Discussion

The recreational allocation (45%) would be 2.21 million pounds (recreational sector ACL) and the commercial allocation (55%) would be 2.70 million pounds (commercial sector ACL).

Alternative 3. ACL = X% of ABC = _____ million pounds.

Discussion

The Council would need to provide guidance on what percentage to use.

AP Motions (2009):

AP MOTION #9: RECOMMEND ACL = 8 MILLION POUNDS (OPTION 5)
APPROVED BY AP

Table 13. Summary of quota management and harvest (million pounds) for Atlantic Migratory Group Spanish Mackerel.

Fishing Year	ABC Range (M lbs)	TAC (M lbs)	Rec. Allocation (lbs. / numbers)	Rec. Bag Limit	Commercial Quota	Annual Com.	Harvest Rec.	Levels Total
1987/88	1.7 - 3.1	3.1	0.74	4 in FL, 10 GA-NC	2.36	3.475	1.474	4.949
1988/89	1.3 - 5.5	4.0	0.96	4 in FL, 10 GA-NC	3.04	3.521	2.740	6.261
1989/90	4.1 - 7.4	6.0	2.76 / 1,725,000	4 in FL, 10 GA-NC	3.24	3.941	1.569	5.51
1990/91	4.2 - 6.6	5.0	1.86 / 1,216,000	4 in FL, 10 GA-NC	3.14	3.535	2.075	5.61
1991/92	5.5 - 13.5	7.0	3.50 / 2,778,000	5 in FL, 10 GA-NC	3.50	4.707	2.287	6.994
1992/93	4.9 - 7.9	7.0	3.50 / 2,536,000	10 FL - NY	3.50	3.727	1.995	5.722
1993/94	7.3 - 13.0	9.0	4.50 / 3,214,000	10 FL - NY	4.50	4.811	1.493	6.304
1994/95	4.1 - 9.2	9.2	4.60 / 3,262,000	10 FL - NY	4.60	5.254	1.378	6.632
1995/96	4.9 - 14.7	9.4	4.70 / 3,113,000	10 FL - NY	4.70	1.834	1.089	2.923
1996/97	5.0 - 7.0	7.0	3.50 / 2,713,000	10 FL - NY	3.50	3.098	0.849	3.947
1997/98	5.8 - 9.4	8.0	4.00 / 2,564,000	10 FL - NY	4.00	3.057	1.660	4.717
1998/99	5.4 - 8.2	8.0	4.00 / 2,564,000	10 FL - NY	4.00	3.272	0.817	4.089
1999/00	5.7 - 9.0	7.04	3.17 / 2,032,000	10 FL - NY	3.52	2.370	1.505	3.875
2000/01	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.794	2.699	5.493
2001/02	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.056	2.009	5.065
2002/03	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.207	2.072	5.279
2003/04	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.742	1.994	5.736
2004/05	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.684	1.371	5.055
2005/06	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.138	1.985	5.123
2006/07	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	3.521	1.783	5.305
2007/08	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.716		
2008/09	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.390		
2009/10	5.7 - 9.0	7.04	3.17 / 2,032,000	15 FL - NY	3.87	2.633		

Notes: 1) The range has been defined in terms of acceptable risk of achieving the FMP's fishing mortality rate target; the Panel's best estimate of ABC has been intermediate to the end-points of this range; 2) Recreational allocation in numbers is the allocation divided by an estimate of annual average weight (not used prior to fishing year 1989); 3) Sums within rows may not appear to equal the total value shown due to rounding of numbers before printing; 4) Allocations and rec. quota are as revised October 14, 1989; 5) Bag limit not be reduced to zero when allocation reached, beginning fishing year 1992; and 6) Season is April through March for 2001/02 through 2004/05 and March through the end of February for 2005/06 onwards.
Source: ALS data, August 9, 2006; Data provided by the Southeast Fisheries Science Center, October 2006.
Source: 2007/08 commercial from NMFS Quota Report dated March 4, 2008 (#9 Report, 2007/2008).
Source: 2008/09 commercial from NMFS Quota Report dated March 23, 2009 (#9 Report, 2008/2009).
Source: 2009/10 commercial from NMFS Quota Report dated March 18, 2010 (#11 Report, 2008/2009).

4.15.6 Annual Catch Target (ACT)

Action 15a. Commercial Sector ACT

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

Table 14. The commercial sector ACT for each of the alternatives. Values are in lbs whole weight.
Note: This table will be completed once the Council chooses the preferred ACL alternative.

Species	Preferred Commercial ACL	Commercial Sector ACT		
		ACT Alt. 2; ACT=ACL	ACT Alt. 3; ACT=90%(ACL)	ACT Alt. 4; ACT=80%(ACL)
Atlantic migratory group Spanish mackerel				

Action 15b. Recreational Sector ACT

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group Spanish mackerel.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Table 15. Proportional Standard Errors (PSEs) for Atlantic migratory group Spanish mackerel from numbers estimates (A+B1) for all modes. Obtained from http://www.st.nmfs.noaa.gov on May 12, 2010.

Species	2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
Atlantic migratory group king mackerel	7.4	8.7	8.2	8.9	8.1	7.7	8.1	8.0	8.2

Table 16. The recreational ACT for each of the alternatives. Values are in lbs whole weight. *Note: This table will be completed once the Council chooses the preferred ACL alternative.*

Species	Preferred Recreational Sector ACL	Recreational Sector ACT		
		ACT Alt. 2; ACT=75%(ACL)	ACT Alt. 3; ACT=75%(ACL)	ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]
Atlantic migratory group Spanish mackerel				

4.16 Action 16. Specify Accountability Measures (AMs) for Atlantic Migratory Group Spanish mackerel

Note: Accountability Measures (AMs) include in-season measures that are intended to limit each sector to their ACL/ACT and post-season measures to make adjustments if the ACL/ACT is exceeded. In-season measures are equivalent to management measures (regulations) that have been set in the past.

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the recreational sector ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use three-year running average.

AP Motions (2009):
AP MOTION #10: SUGGEST REDUCING THE BAG LIMIT RATHER THAN REDUCING THE LENGTH OF THE FOLLOWING FISHING YEAR
APPROVED BY AP 6 TO 2

Alternative 3. Bag Limits:
MOTION: DELETE OPTION A.
APPROVED BY SAFMC COMMITTEE (6/04)
APPROVED BY GMFMC COMMITTEE (6/04)

SAFMC AP AND COMMITTEE BY CONSENSU RECOMMENDED INCLUDING OPTION A FOR SCOPING (6/06).

Sub-Alternative 3a. ~~**Option a. Reduce the individual bag limit to 10 NY-FL** (Note: this was the previous bag limit).~~

AP MOTION #11 (2009): SUGGEST OPTIONS B & C.
[TABLED UNTIL TOMORROW]
UNTABLED
[INTENT THAT THIS NOT APPLY TO HEADBOATS]

APPROVED BY AP

Sub-Alternative 3b. Option b. Set a maximum bag limit of 60 Spanish mackerel per boat for charter boats.

Sub-Alternative 3c. Option c. Set the individual bag limit at 15 per person with a maximum of 60 per boat.

Sub-Alternative 3d. Option d. Status Quo - Individual Bag limit for Atlantic group Spanish mackerel remains at 15 NY-FL. (Note: This bag limit was approved at the June 1999 Council meeting, published as a final rule on July 3, 2000, and effective August 2, 2000.)

Sub-Alternative 3e. Option e. Reduce the individual bag limit at from 15 to 10 per person.

Alternative 4. Prohibit bag limit sales of Atlantic migratory group Spanish mackerel.

AP MOTION #12 (2009): PROHIBIT SALE OF RECREATIONALLY CAUGHT SPANISH MACKEREL
APPROVED BY AP 6 TO 2

Alternative 5. Trip Limits:
MOTION: KEEP FOR SCOPING
APPROVED BY SAFMC COMMITTEE (6/04)
APPROVED BY GMFMC COMMITTEE (6/04)

Sub-Alternative 5a. Option a. Status Quo - The possession limits are as follows:

1. April 1 - November 30 -- 3,500 pounds per vessel per day.
2. December 1 until 75% of the adjusted allocation is taken:
   Monday - Friday Unlimited
   Other days 1,500 pounds
   (Vessel fishing days begin at 6:00 a.m. and extend until 6:00 a.m. the following day, and vessels must be unloaded by 6:00 p.m. of that following day.)
3. After 75% of the adjusted allocation is taken 1,500 pounds per vessel per day for all days.
4. When 100% of the adjusted allocation is reached: 500 pounds per vessel per day to the end of the fishing year (March 31). Adjusted allocation compensates for estimated catches of 500 pounds per vessel per day to the end of the season.

Sub-Alternative 5b. Option b. Change the unlimited opening from December 1 to November 1st or 15th**.**

SAFMC AP would like to see this changed to November 14th. (6/04)
MOTION: KEEP SPANISH MACKEREL TRIP LIMITS STATUS QUO BUT CHANGE THE START DATE TO TRACK THE FISHING YEAR (MARCH 1)
APPROVE BY SAFMC AP (6/06)

SAFMC AP SUGGESTED AN OPTION TO TRACK FLORIDA STATE REGULATIONS (3,500 POUNDS MONDAY THROUGH FRIDAY AND THEN 1,500 POUNDS ON SATURDAY AND SUNDAY) BE INCLUDED IN THE SCOPING DOCUMENT (6/06).

Alternative 6. Moratorium & Limited Entry
~~**ACTION 15. CONSIDER OPTIONS TO ESTABLISH A MORATORIUM ON ATLANTIC MIGRATORY GROUP SPANISH MACKEREL AND A LIMITED ENTRY PROGRAM.**~~

Note: A control date of June 15, 2004 has been established for the Spanish mackerel fishery north of the Dade/Monroe county line on the Florida east coast. Should the Council decide to establish a limited entry program, fishermen obtaining a permit after June 15, 2004 are not guaranteed to be included in the limited entry program.
Note: A letter from Ben Hartig outlining proposed measures for the Atlantic Spanish Mackerel fishery is also attached.

Committee Action: Pick a preferred action.
Option 1. No action.
Option 2. Instruct staff to develop alternatives to address this action.
Option 3. Others??

MOTION: DELETE THIS ACTION; INCLUDE IN APPENDIX AS CONSIDERED BUT REJECTED.
APPROVED BY SAFMC COMMITTEE (6/04)
APPROVED BY GMFMC COMMITTEE (6/04)

SAFMC AP MOTION: REQUEST THE STATE OF FLORIDA MAKE SPANISH MACKEREL PERMIT A REQUISITE TO HARVEST SPANISH MACKEREL COMMERCIALLY IN STATE WATERS IN FLORIDA.
APPROVED BY SAFMC AP (6/04)

SAMFC AP MOTION: SET A CONTROL DATE OF 6/15/04 FOR ATLANTIC SPANISH MACKEREL
APPROVED BY SAFMC AP (6/04)

SAFMC COMMITTEE: REQUEST THE STATE OF FLORIDA MAKE SPANISH MACKEREL PERMIT A REQUISITE TO HARVEST SPANISH MACKEREL COMMERCIALLY IN STATE WATERS IN FLORIDA
MOTION WITHDRAWN (6/04)

SAFMC COMMITTEE MOTION: SET A NEW CONTROL DATE OF 6/15/04 FOR SPANISH MACKEREL.
APPROVED BY SAFMC COMMITTEE (6/04)
APPROVED BY SAFMC COUNCIL (6/04)

Purpose and Need: The current stock assessment for Atlantic migratory group Spanish mackerel indicates that they are neither overfished nor undergoing overfishing. Their spawning stock biomass estimates are also well above B_{MSY}. Furthermore, there is reduced demand for these fish and harvest levels are well below current TAC levels. Consequently, there would not appear to be a need for a permit moratorium, unless the Councils feel that the existing number of permits could, if demand increased, provide sufficient effort to harvest MSY.

NOTE: The Gulf Council voted to remove this Action and list it as an option that was considered but rejected.

SAFMC COMMITTEE DIRECTED STAFF TO INCLUDE ALTERNATIVES THAT WERE SUGGESTED IN THE LETTER FROM BEN HARTIG AND THAT WERE SUGGESTED AT THE PUBLIC COMMENT PERIOD ON TUESDAY (6/06).

Spanish Mackerel Gillnet Endorsement (provided by an AP member)

Implement a transferable Spanish mackerel gillnet endorsement for those vessels harvesting Spanish mackerel by gillnet in the EEZ:

1. Off Florida - The bulk of the harvest occurs off Florida therefore there is a justification for the Florida only option.
2. Within the management area of the South Atlantic Council, or
3. Throughout the range of the species.

Purpose and Need: In the past several years, Spanish mackerel have become more available in Federal waters. There is increased effort by new entrants into the gillnet fishery for Spanish mackerel. There has been a traditional gillnet fishery in Federal waters since the net ban. The most significant effort on Spanish mackerel occurs in State waters. There has been a good balance between Federal and State water Spanish mackerel harvest in the past. Accommodating new entrants into the gillnet fishery will disrupt the traditional balance that has occurred between State and Federal water fisheries.

The fishing power of gillnets is much greater than the cast net fishery, the predominant gear in State waters. The quota is already being reached. Introduction of new entrants into the gillnet fishery will cause the quota to be reached faster. And if the trend continues, more and more effort will be directed into the gillnet fishery.

All of the traditional net fishermen polled support a gillnet endorsement. A gillnet endorsement, depending on the qualifying criteria, would limit the number of gillnet permit to more traditional gillnet fishermen. Many of these fishermen were severely impacted by the net ban.

New alternatives to consider payback of any overage:

Alternative 7. Commercial payback of any overage.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.

Alternative 8. Recreational payback of any overage from one year to the next.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.

4.17 Action 17. Specify MSY, MSST, MFMT/OFL, ABC, OY, ACL (TAC), Allocations, and ACT levels for Atlantic migratory group cobia

The MSY, MSST, OFL and ABC will come from each SEDAR assessment and the recommendations of the SSC as they review each assessment. Cobia has not been assessed under the SEDAR process but is scheduled to be assessed in SEDAR 28 during 2012. The SAFMC SSC has developed a data-poor control rule that can be used for cobia.

The Councils will review recommendations from the April 2010 SSC meeting and develop alternatives at the June 2010 Council meeting.

4.17.1 Maximum Sustainable Yield (MSY), Minimum Stock Size Threshold (MSST), and Maximum Fishing Mortality Threshold (MFMT)

The Council has determined that the value for MSY is the value from the most recent stock assessment. Currently MSY is unknown.

The Council has determined that the value for MSST is the value from the most recent stock assessment based on MSST = [(1-M) or 0.5 whichever is greater]*B_{MSY}. Currently MSST is unknown.

The Council has determined that the value for MFMT is the value of F_{MSY} or proxy from the most recent stock assessment. Currently MFMT is unknown.

The Council will need to develop alternatives for MSY, MSST and MFMT.

4.17.2 Overfishing Level (OFL)

The Scientific and Statistical Committee provided the following OFL at their April 2010 meeting: "Since no estimate of MSY is available for cobia the SSC decided to estimate OFL as the median of landings data for the period 1986-2008. Therefore, OFL = 857,714 pounds."

4.17.3 Allowable Biological Catch (ABC) Control Rule and ABC

ABC is recommended by the Scientific and Statistical Committee and specified by the Council.

Alternative 1. No Action. Do not establish an ABC Control Rule for Atlantic migratory group cobia.

Alternative 2. Establish ABC based on the SSC's Data Poor ABC control rule.
The SSC decided to develop OFL for each species based on median of landings for 1999 to 2008. From there, they will apply the ABC control rule for all the species together for each species grouping to develop the ABC reduction level. The results of the ABC control rule will be multiplied by the OFL to determine the reduction to the OFL for the grouping to each individual

species. Each ABC would start at 35% (0% for unknown depletion, 15% because not forage or habitat, __% the appropriate PSA score, 20% out of 25% for certainty of OFL level) of OFL. The variability in the ABC will be that they will have to use the PSA for each species and add the appropriate percent to the ABC that will come up with the appropriate level. The range of ABC for each data poor species will be 35% to 55% of OFL. This approach will be revisited species by species as more data become available. This is considered the "Triage Approach" for the snapper grouper data poor species. Current species exceptions are golden tilefish, yellow tail snapper, wreckfish, and amberjack. Since the Council is following the red porgy rebuilding plan, they won't be included in this data poor snapper grouper analysis.

Since no estimate of MSY is available for cobia the SSC decided to estimate OFL as the median of landings data for the period 1986-2008. Therefore, OFL = 857,714 pounds. Application of the data-poor control rule generated the following adjustments (Tier 1: +0%, Tier 2: +15%, Tier 3: +20%, Tier 4: +20%), so ABC will be set at 55% of OFL. Therefore, ABC for cobia = 471,743 pounds.

The Council is also considering the following non-SSC Control Rules:

Alternative 3. Establish an ABC Control Rule where ABC equals OFL.

Alternative 4. Establish an ABC Control Rule where ABC equals a percentage of OFL.

Alternative 4a. ABC=65%OFL

Alternative 4b. ABC=75%OFL

Alternative 4c. ABC=85%OFL

Alternative 5. Establish an ABC Control Rule where ABC equals a percentage of the yield at MFMT.

Alternative 5a. ABC=yield at 65%MFMT

Alternative 5b. ABC=yield at 75%MFMT

Alternative 5c. ABC=yield at 85%MFMT

Alternative 6. Establish an ABC Control Rule where ABC is a percentage of OFL. The percentage is based upon the level of risk of overfishing (P*).

Alternative 6a. ABC=X% of OFL. The X% is based upon P* equals .20.

Alternative 6b. ABC=X% of OFL. The X% is based upon P* equals .30.

Alternative 6c. ABC=X% of OFL. The X% is based upon P* equals .40.

Alternative 6d. ABC=X% of OFL. The X% is based upon P* equals .50.

4.17.4 Optimum Yield (OY)

Currently OY = the yield from fishing at a fishing mortality rate equal to 40%Spawning Potential Ratio; however, a value was not previously estimated.

Alternative 1. No action. Currently OY = yield at $F_{40\%SPR}$ with no poundage estimated.

Alternative 2. OY = 65%F_{MSY} = ?????? million pounds.

Alternative 3. OY = 75%F_{MSY} = ?????? million pounds.

Alternative 4. OY = 85%F_{MSY} = ?????? million pounds.

4.17.5 Allocations

Alternative 1. No action. Currently there are no allocations for cobia.

Alternative 2. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on landings from the years 2007-2009. The allocation would be xx% commercial and y% recreational. Beginning in 2011, the commercial allocation would be xxxxxx lbs gutted weight and the recreational allocation wouldbe xxxxx fish (yyyyyyy lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Alternative 3. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on the following formula for each sector:

> Sector apportionment = (50% * average of long catch range (lbs) 1986-2009??) + (50% * average of recent catch trend (lbs) 2007-2009??). The allocation would be xx% commercial and yy% recreational. Beginning in 2011, the commercial allocation would be xxxxxx lbs gutted weight and the recreational allocation would be yyyy fish (xxxxx lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Alternative 4. Define allocations for Atlantic migratory group cobia based upon landings from the ALS, MRFSS, and headboat databases. The allocation would be based on the following formula for each sector:
Sector apportionment = (50% * average of long catch range (lbs) 1986(or 1999)-2008) + (50% * average of recent catch trend (lbs) 2006-2008). The allocation would be xx% commercial, yy% for-hire, and zz% private recreational. Beginning in 2011, the commercial allocation would be _____ lbs gutted weight, the for-hire allocation would be _____ fish (_____ lbs gutted weight), and the private recreational allocation would be _____ fish (_____ lbs gutted weight). The commercial, for-hire, and private recreational allocations specified for 2011 would remain in effect beyond 2011 until modified.

Alternative 5. Split the allocations for Atlantic migratory group cobia equally among the two sectors. The allocation would be 50% commercial and 50% recreational. Beginning in 2011, the commercial allocation would be xxxxx lbs gutted weight and the recreational allocation would be yyyyy fish (xxxxx lbs gutted weight). The commercial and recreational allocation specified for 2011 would remain in effect beyond 2011 until modified.

Table 17. Atlantic Migratory Group Cobia ABC recommendation from the Scientific and Statistical Committee and proposed allocations.

		Allocation Alt.2		Allocation Alt.3		Allocation Alt.4		Allocation Alt.5	
Year	ABC	Rec (?%)	Com (?%)	Rec (?%)	Com (?%)	Rec (?%)	Com (?%)	Rec (?%)	Com (?%)
2011	471,743								

4.17.6 Annual Catch Limit (ACL)

The ACL is equivalent to TAC as used in the past.

Alternative 1. No action. Currently there is no TAC or ACL for cobia.

Alternative 2. ACL = ???? thousand pounds based on the SSC recommendation.

Alternative 3. ACL = X% of ABC = ???? thousand pounds.

Table 18. Recreational and commercial landing of Atlantic cobia by year and area.

COBIA TOTAL LBS LANDED					
Year	Commercial	%Comm	Recreational	%Rec	Total
1986	60,000	11.4%	466,635	88.6%	526,635
1987	99,000	12.4%	701,676	87.6%	800,676
1988	101,000	13.9%	627,182	86.1%	728,182
1989	127,000	8.9%	1,294,243	91.1%	1,421,243
1990	123,000	17.3%	589,042	82.7%	712,042
1991	141,000	19.7%	576,207	80.3%	717,207
1992	145,000	11.8%	1,087,402	88.2%	1,232,402
1993	126,000	16.9%	619,512	83.1%	745,512
1994	135,000	19.9%	542,924	80.1%	677,924
1995	158,000	24.0%	499,624	76.0%	657,624
1996	166,000	19.4%	691,714	80.6%	857,714
1997	169,000	15.3%	934,042	84.7%	1,103,042
1998	137,000	13.9%	850,925	86.1%	987,925
1999	124,000	11.0%	1,004,885	89.0%	1,128,885
2000	115,000	14.1%	700,309	85.9%	815,309
2001	119,000	19.5%	490,001	80.5%	609,001
2002	114,000	15.2%	637,943	84.8%	751,943
2003	97,000	6.2%	1,457,935	93.8%	1,554,935
2004	104,000	8.5%	1,121,571	91.5%	1,225,571
2005	74,000	8.5%	797,172	91.5%	871,172
2006	99,000	10.1%	879,657	89.9%	978,657
2007	103,000	9.6%	965,996	90.4%	1,068,996
2008	103,000	8.9%	1,053,825	91.1%	1,156,825

Source: Commercial data from Vondruska (2010). Total landings from SEFSC data provided to SSC April 2010 meeting. Recreational = Total – Commercial.
Note: Atlantic does not include Monroe County, Florida.

4.17.7 Annual Catch Target (ACT)

Action 17a. Commercial Sector ACT

Alternative 1. Do not specify commercial sector ACTs for Atlantic migratory group cobia.

Alternative 2. The commercial sector ACT equals the commercial sector ACL.

Alternative 3. The commercial sector ACT equals 90% of the commercial sector ACL.

Alternative 4. The commercial sector ACT equals 80% of the commercial sector ACL.

Table 19. The commercial sector ACT for each of the alternatives. Values are in lbs whole weight.
Note: This table will be completed once the Council chooses the preferred ACL alternative.

Species	Preferred Commercial ACL	Commercial Sector ACT		
		ACT Alt. 2; ACT=ACL	ACT Alt. 3; ACT=90%(ACL)	ACT Alt. 4; ACT=80%(ACL)
Atlantic migratory group cobia				

Action 17b. Recreational Sector ACT

Alternative 1 (no action). Do not specify recreational sector ACTs for Atlantic migratory group cobia.

Alternative 2. The recreational sector ACT equals 85% of the recreational sector ACL.

Alternative 3. The recreational sector ACT equals 75% of the recreational sector ACL.

Alternative 4. The recreational sector ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater].

Table 20. Proportional Standard Errors (PSEs) for Atlantic migratory group Spanish mackerel from numbers estimates (A+B1) for all modes. Obtained from http://www.st.nmfs.noaa.gov on May 12, 2010.

Species	2003	2004	2005	2006	2007	2008	2009	3 year average (2007-09)	5 year average (2005-09)
Atlantic migratory group cobia	15.0	20.2	21.4	14.7	15.2	18.9	14.8	16.3	17.0

Table 21. The recreational ACT for each of the alternatives. Values are in lbs whole weight. *Note: This table will be completed once the Council chooses the preferred ACL alternative.*

Species	Preferred Recreational Sector ACL	Recreational Sector ACT		
		ACT Alt. 2; ACT=75%(ACL)	ACT Alt. 3; ACT=75%(ACL)	ACT Alt. 4; ACT equals sector ACL[(1-PSE) or 0.5, whichever is greater]
Atlantic migratory group cobia				

4.18 Action 18. Specify Accountability Measures (AMs) for Atlantic Migratory Group cobia

Note: Accountability Measures (AMs) include in-season measures that are intended to limit each sector to their ACL/ACT and post-season measures to make adjustments if the ACL/ACT is exceeded. In-season measures are equivalent to management measures (regulations) that have been set in the past.

The Councils may specify multiple preferred from among the following:

Alternative 1 (Status Quo). There is no quota for cobia and there are no AMs in place for cobia. This would retain the following regulations that apply to both recreational and commercial fishermen: (a) 33" fork length minimum size limit, (b) 2 per person bag limit (Note: Florida state regulations only allow 1 per person), (c) one day possession limit, (d) must be landed with heads and fins intact, and (d) charter/headboats require a permit for Coastal Migratory Pelagics.

Alternative 2. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Do not implement ACLs or AMs for the recreational sector.

Alternative 3. The commercial AM for this stock is to prohibit harvest, possession, and retention when the quota is met. All purchase and sale is prohibited when the quota is met. Implement Accountability Measures (AMs) for the recreational sector for this stock. If the ACL is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the sector ACL for the following fishing year. Compare recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use three-year running average.

Alternative 4. Reduce the bag limit to 1 per person.

Advisory Panel Motions (2009):
AP MOTION #13: REDUCE THE BAG LIMIT TO 1/PERSON REGION-WIDE
DISAPPROVE WITH 1 IN FAVOR

AP MOTION #14: REDUCE THE RECREATIONAL AND COMMERCIAL BAG LIMIT TO 1/PERSON IN STATE AND FEDERAL WATERS OF SC
NO SECOND

AP MOTION #15: FOR SC, FROM APRIL 15 – JUNE 15, RECREATIONAL ONLY, CONSIDER THE FOLLOWING ALTERNATIVES:

1. 1 FISH BAG LIMIT
2. 2-FISH BAG LIMIT WITH 39" SIZE LIMIT
3. 1 FISH AND MINIMUM SIZE LIMIT OF 39"

APPROVED BY AP WITH 1 OPPOSED

Alternative 5. Prohibit bag limit sales of Atlantic migratory group cobia.

Advisory Panel Motion (2009):

AP MOTION #16: NO SALE OF RECREATIONALLY CAUGHT COBIA
APPROVED BY AP 6 TO 2

Alternative 6. Specify a commercial trip limit.

Sub-Alternative 6a. Status Quo. Currently the commercial sector is included under the bag limit of 1 per person.

Sub-Alternative 6b. Specify a commercial trip limit of 1 cobia per person.

Alternative 7. Establish a spawning season closure: April-September or April-June or some other time period (Council to specify).

Alternative 8. Establish a spawning season area closure: April-September or April-June or some other time period (Council to specify).

Alternative 9. Establish a boat limit of 1 per boat/vessel during: April-September or April-June or some other time period (Council to specify).

New alternatives to consider payback of any overage:

Alternative 10. Commercial payback of any overage.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.

Alternative 11. Recreational payback of any overage from one year to the next.
Sub-alternative a. Payback regardless of stock status.
Sub-alternative b. Payback only if overfished.