

Attachment 2b- Mackerel AP Meeting February 2016

Appendix A

Action 2-2- ACL alternatives for Atlantic king mackerel

Table A-1. Possible outcomes under **Alternative 2** based on alternatives in Action 2-1. The recreational allocation is 62.9% and the commercial allocation is 37.1%. The Northern Zone quota will be 23.04% and the Southern Zone quota allocation is 76.96% (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). ACT values are calculated based on formula from CMP Amendment 18 using the average PSE from 2005-2009.

ACL = ABC HIGH Recruitment Scenario Action 2-1, SA Preferred Alt 2						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	17.4 mp	6.5 mp	1,497,600	5,002,400	10.9 mp	10.1 mp
2017/18	15.8 mp	5.9 mp	1,359,360	4,540,640	9.9 mp	9.2 mp
2018/19	14.1 mp	5.2 mp	1,198,080	4,001,920	8.9 mp	8.3 mp
2019/20	12.7 mp	4.7 mp	1,082,880	3,617,120	8.0 mp	7.4 mp
ACL = ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	16.5 mp	6.1 mp	1,405,440	4,694,560	10.4 mp	9.7 mp
2017/18	14.3 mp	5.3 mp	1,221,120	4,078,880	9.0 mp	8.4 mp
2018/19	12.9 mp	4.8 mp	1,105,920	3,694,080	8.1 mp	7.5 mp
2019/20	12.1 mp	4.5 mp	1,036,800	3,463,200	7.6 mp	7.1 mp
ACL = ABC LOW Recruitment Scenario Action 2-1, Alt 4						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	15.4 mp	5.7 mp	1,313,280	4,386,720	9.7 mp	9.0 mp
2017/18	12.9 mp	4.8 mp	1,105,920	3,694,080	8.1 mp	7.5 mp
2018/19	11.9 mp	4.4 mp	1,013,760	3,386,240	7.5 mp	7.0 mp
2019/20	11.6 mp	4.3 mp	990,720	3,309,280	7.3 mp	6.8 mp

Table A-2. Possible outcomes under **South Atlantic Preferred Alternative 3** [Establish ACL = OY = Deterministic equilibrium yield at $F_{30\%SPR} = 12.7$ mp for fishing years 2016/17 through 2019/20. **(Recommended by the South Atlantic SSC and Gulf AP)**] The recreational allocation is 62.9% and the commercial allocation is 37.1%. The Northern Zone quota will be 23.04% and the Southern Zone quota allocation is 76.96%

SA Preferred Alternative 3	
Atlantic King Mackerel ACL	12.7 mp
Commercial ACL	4.7 mp
Northern Zone Quota	1,082,880 lbs
Southern Zone Quota	3,617,120 lbs
Recreational ACL	8.0 mp
Recreational ACT*	7.4 mp

*ACT value calculated based on formula from CMP Amendment 18, using the average PSE from 2005-2009.

Table A-3. Possible outcomes under **Alternative 4** [Establish ACL = OY = Deterministic equilibrium yield at 75% $F_{30\%SPR} = 11.6$ mp for fishing years 2016/17 through 2019/20. **(Recommended by the South Atlantic SSC and Gulf AP)**] The recreational allocation is 62.9% and the commercial allocation is 37.1%. The Northern Zone quota will be 23.04% and the Southern Zone quota allocation is 76.96%

Alternative 4	
Atlantic King Mackerel ACL	11.6 mp
Commercial ACL	4.3 mp
Northern Zone Quota	990,720 lbs
Southern Zone Quota	3,309,280 lbs
Recreational ACL	7.3 mp
Recreational ACT*	6.8 mp

*ACT value calculated based on formula from CMP Amendment 18, using the average PSE from 2005-2009.

Alternative 5: Establish ACL = OY = 90% ABC based on the ABC levels selected under Action 2-1.

Table A-4. Possible outcomes under **Alternative 5** based on alternatives in Action 2-1. The recreational allocation is 62.9% and the commercial allocation is 37.1%. The Northern Zone quota will be 23.04% and the Southern Zone quota allocation is 76.96%.

ACL = 90% ABC HIGH Recruitment Scenario Action 2-1, SA Pref Alt 2						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	15.7 mp	5.8 mp	1,336,320	4,463,680	9.9 mp	9.2 mp
2017/18	14.2 mp	5.3 mp	1,221,120	4,078,880	8.9 mp	8.3 mp
2018/19	12.7 mp	4.7 mp	1,082,880	3,617,120	8.0 mp	7.4 mp
2019/20	11.4 mp	4.2 mp	967,680	3,232,320	7.2 mp	6.7 mp

ACL = 90% ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	14.9 mp	5.5 mp	1,267,200	4,232,800	9.4 mp	8.7 mp
2017/18	12.9 mp	4.8 mp	1,105,920	3,694,080	8.1 mp	7.5 mp
2018/19	11.6 mp	4.3 mp	990,720	3,309,280	7.3 mp	6.8 mp
2019/20	10.9 mp	4.0 mp	921,600	3,078,400	6.9 mp	6.4 mp
ACL = 90% ABC LOW Recruitment Scenario Action 2-1, Alt 4						
Fishing year	Total Atl KM ACL	Commercial			Recreational	
		Comm ACL	Northern Zone Quota (lbs)	Southern Zone Quota (lbs)	Rec ACL	Rec ACT
2016/17	13.9 mp	5.2 mp	1,198,080	4,001,920	8.7 mp	8.1 mp
2017/18	11.6 mp	4.3 mp	990,720	3,309,280	7.3 mp	6.8 mp
2018/19	10.7 mp	4 mp	921,600	3,078,400	6.7 mp	6.2 mp
2019/20	10.4 mp	3.9 mp	898,560	3,001,440	6.5 mp	6.0 mp

*ACT values are calculated based on formula from CMP Amendment 18 using the average PSE from 2005-2009.

Appendix B

Action 4 Split Season Quotas for the Southern Zone for Alternatives 2-4

Table B-1. Possible outcomes under **South Atlantic Preferred Alternative 2** and **Alternative 3** in Action 4 based on Alternative 2 in Action 2-2 (Atlantic king mackerel ACL=ABC). The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under these two alternatives, the season 1 quota would be 60% and the season 2 quota would be 40%.

ACL = ABC HIGH Recruitment Scenario Action 2-1, SA Preferred Alt 2			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	5,002,400	3,001,440	2,000,960
2017/18	4,540,640	2,724,384	1,816,256
2018/19	4,001,920	2,401,152	1,600,768
2019/20	3,617,120	2,170,272	1,446,848
ACL = ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	4,694,560	2,816,736	1,877,824
2017/18	4,078,880	2,447,328	1,631,552
2018/19	3,694,080	2,216,448	1,477,632
2019/20	3,463,200	2,077,920	1,385,280
ACL = ABC LOW Recruitment Scenario Action 2-1, Alt 4			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	4,386,720	2,632,032	1,754,688
2017/18	3,694,080	2,216,448	1,477,632
2018/19	3,386,240	2,031,744	1,354,496
2019/20	3,309,280	1,985,568	1,323,712

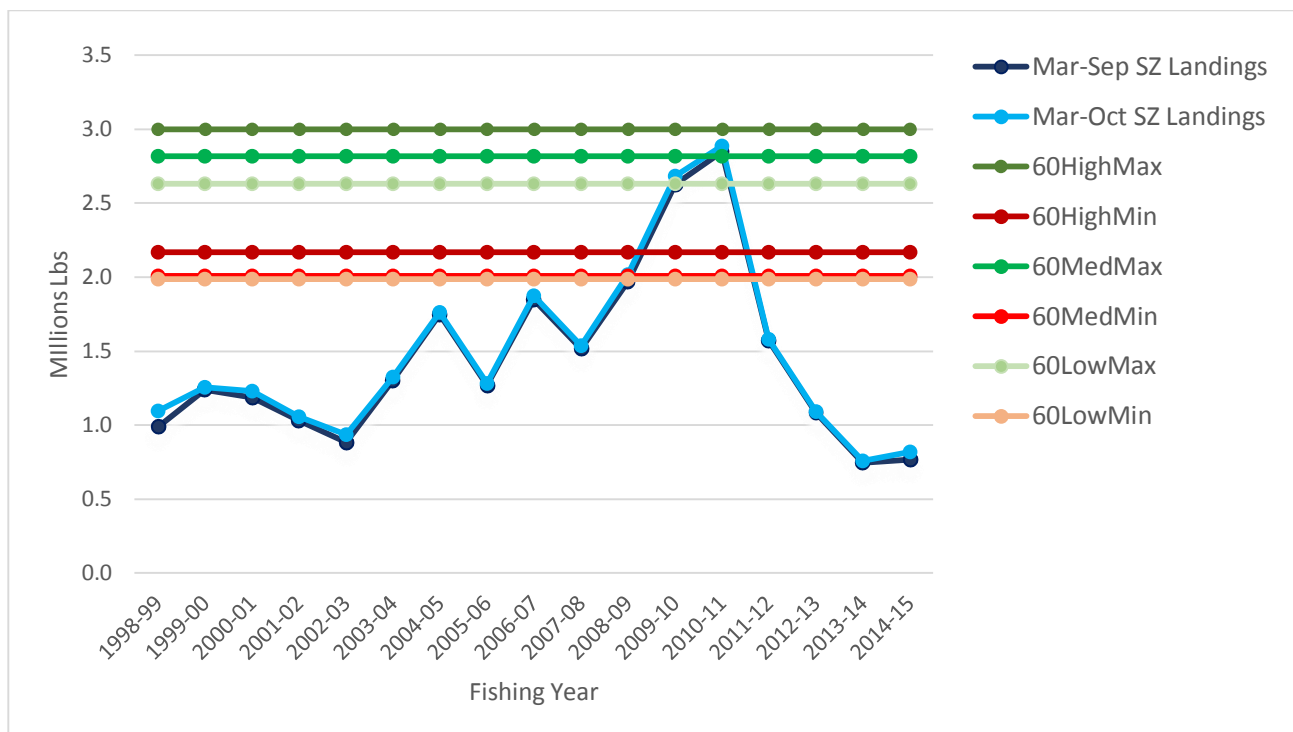


Figure B-1. Comparison of landings in March-September (Alt 2) and March-October (Alt 3) to the highest and lowest possible season 1 quotas under ACL=ABC (Action 2-2, Alternative 2). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

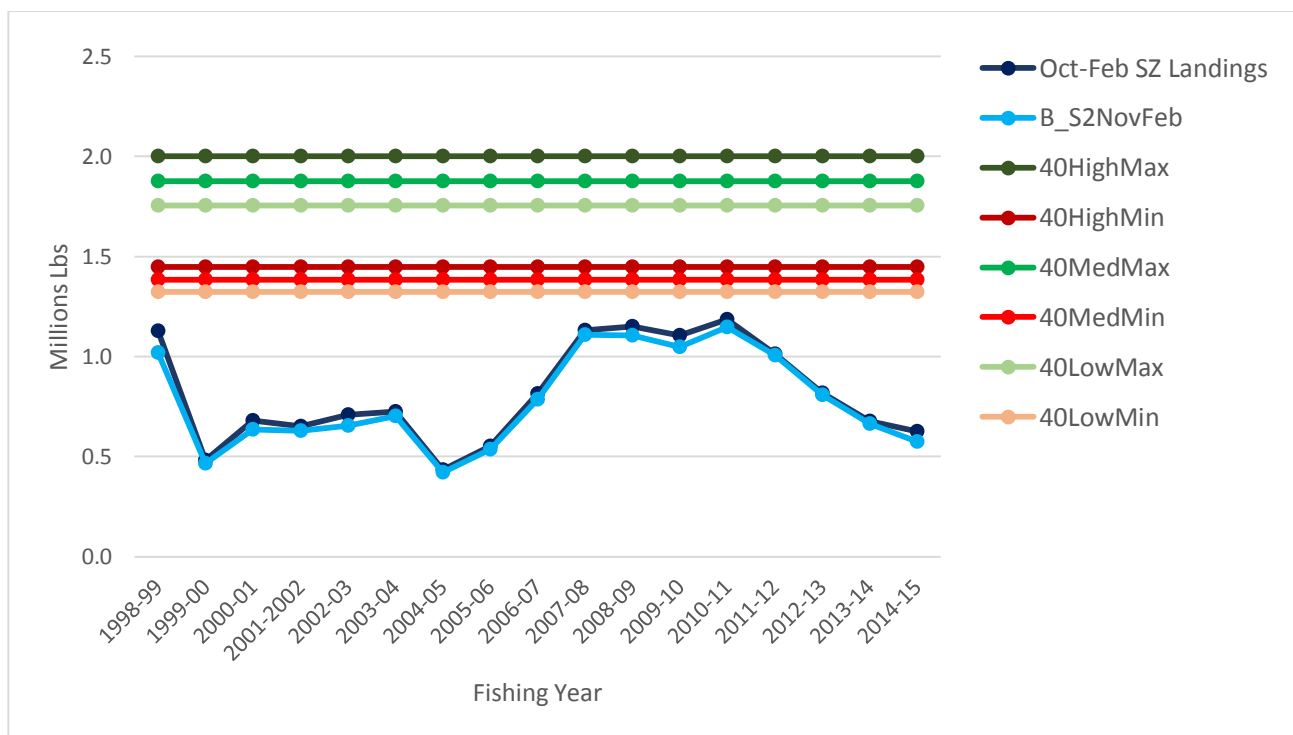


Figure B-2. Comparison of landings in October-February (Alt 2) and November-February (Alt 3) to the highest and lowest possible season 2 quotas under ACL=ABC (Action 2-2, Alternative 2). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

Table B-2. Possible outcomes (lbs) under **South Atlantic Preferred Alternative 2** and **Alternative 3** in Action 4 based on **South Atlantic Preferred** Alternative 3 and Alternative 4 in Action 2-2. The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under these two alternatives, the season 1 quota would be 60% and the season 2 quota would be 40%.

	South Atlantic Preferred Alternative 3 (Action 2-2) ACL=Deterministic Equilibrium Yield at $F_{30\%SPR}^4$			Alternative 4 (Action 2-2) ACL=75% Deterministic Equilibrium Yield at $F_{30\%SPR}^4$		
	Total SZ Quota	Season 1 (60%)	Season 2 (40%)	Total SZ Quota	Season 1 (60%)	Season 2 (40%)
2016/17	3,617,120	2,170,272	1,446,848	3,309,280	1,985,568	1,323,712
2017/18						
2018/19						
2019/20						

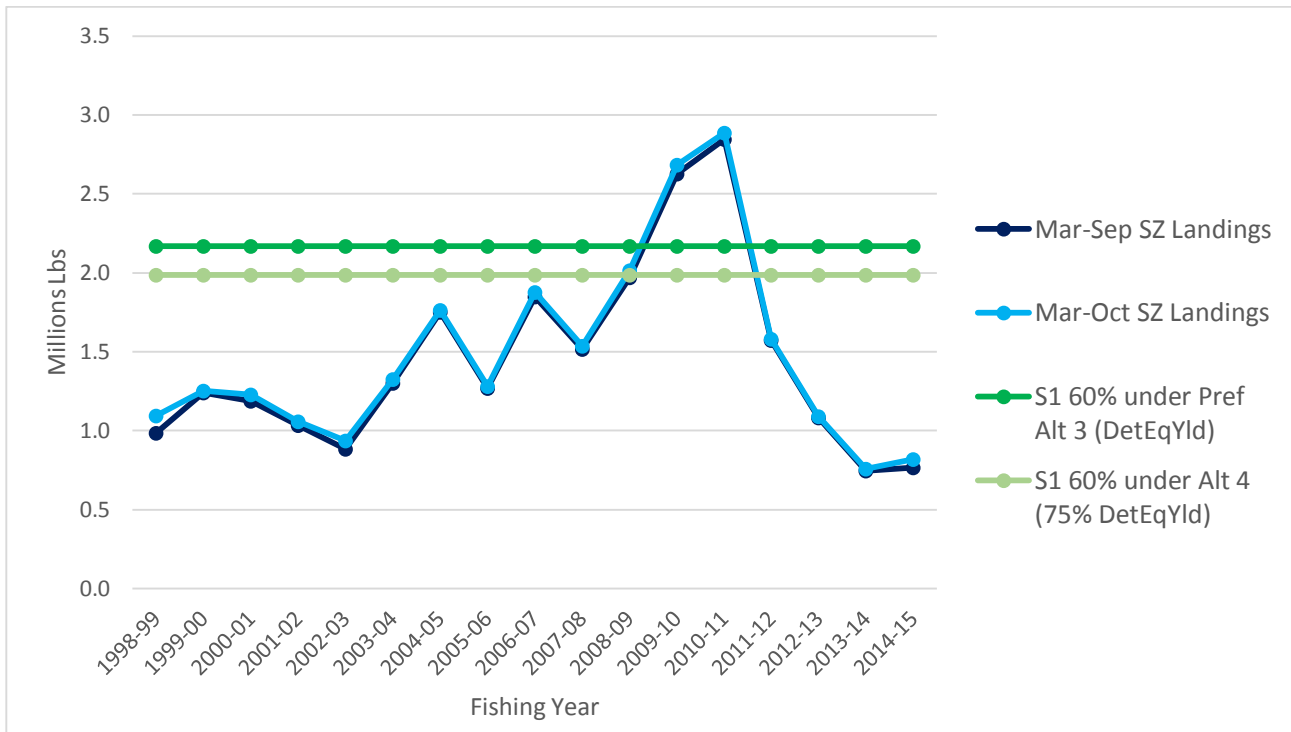


Figure B-3. Comparison of landings in March-September (Alt 2) and March-October (Alt 3) to the season 1 quota under Action 2-2, **South Atlantic Preferred** Alternative 3 and Alternative 4.

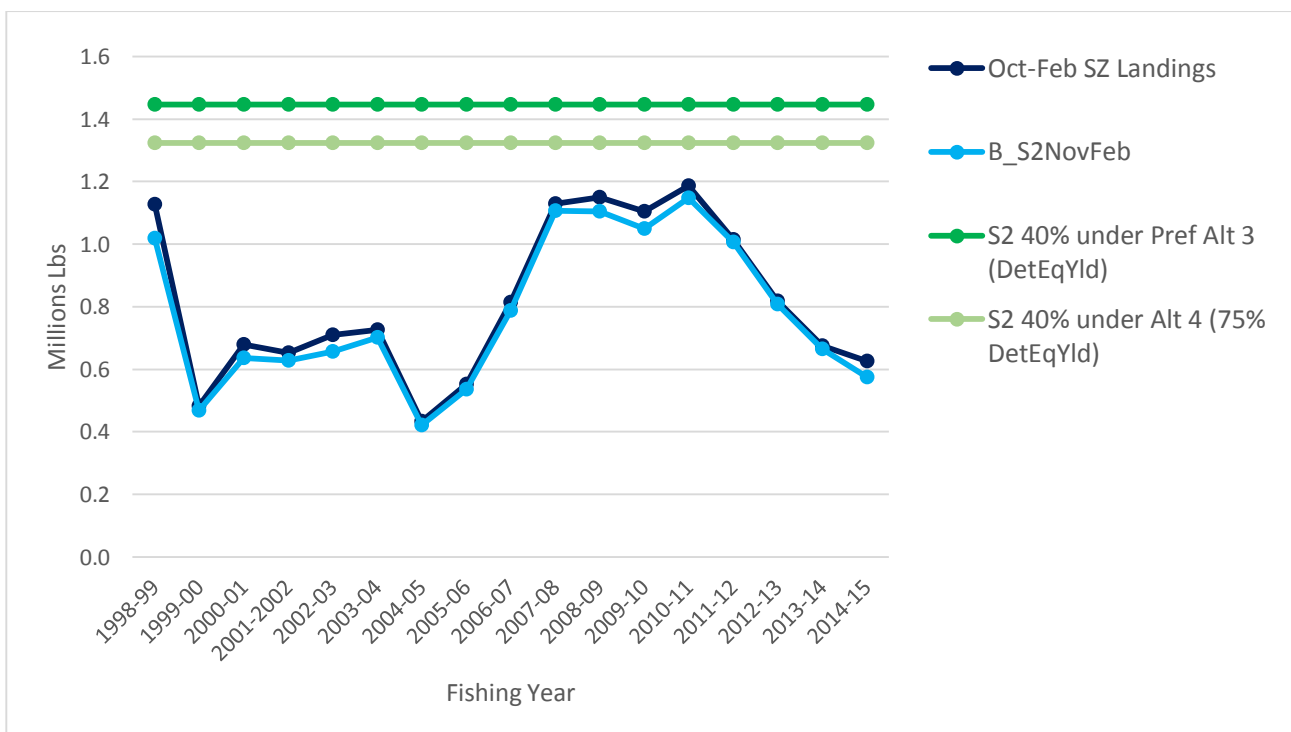


Figure B-4. Comparison of landings in October- February (Alt 2) and March-February (Alt 3) to the season 1 quota under ACL=Deterministic Equilibrium Yield (Action 2-2, **South Atlantic Preferred** Alternative 3).

Table B-4. Possible outcomes (lbs) under **South Atlantic Preferred Alternative 2** and **Alternative 3** in Action 4 based on Alternative 5 in Action 2-2 (Atlantic king mackerel ACL=90%ABC). The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under these two alternatives, the season 1 quota would be 60% and the season 2 quota would be 40%.

ACL = 90% ABC HIGH Recruitment Scenario Action 2-1, SA Preferred Alt 2			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	4,463,680	2,678,208	1,785,472
2017/18	4,078,880	2,447,328	1,631,552
2018/19	3,617,120	2,170,272	1,446,848
2019/20	3,232,320	1,939,392	1,292,928
ACL = 90% ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	4,232,800	2,539,680	1,693,120
2017/18	3,694,080	2,216,448	1,477,632
2018/19	3,309,280	1,985,568	1,323,712
2019/20	3,078,400	1,847,040	1,231,360
ACL = 90% ABC LOW Recruitment Scenario Action 2-1, Alt 4			
Fishing year	Southern Zone Quota	Season 1 (60%)	Season 2 (40%)
2016/17	4,001,920	2,401,152	1,600,768
2017/18	3,309,280	1,985,568	1,323,712
2018/19	3,078,400	1,847,040	1,231,360
2019/20	3,001,440	1,800,864	1,200,576

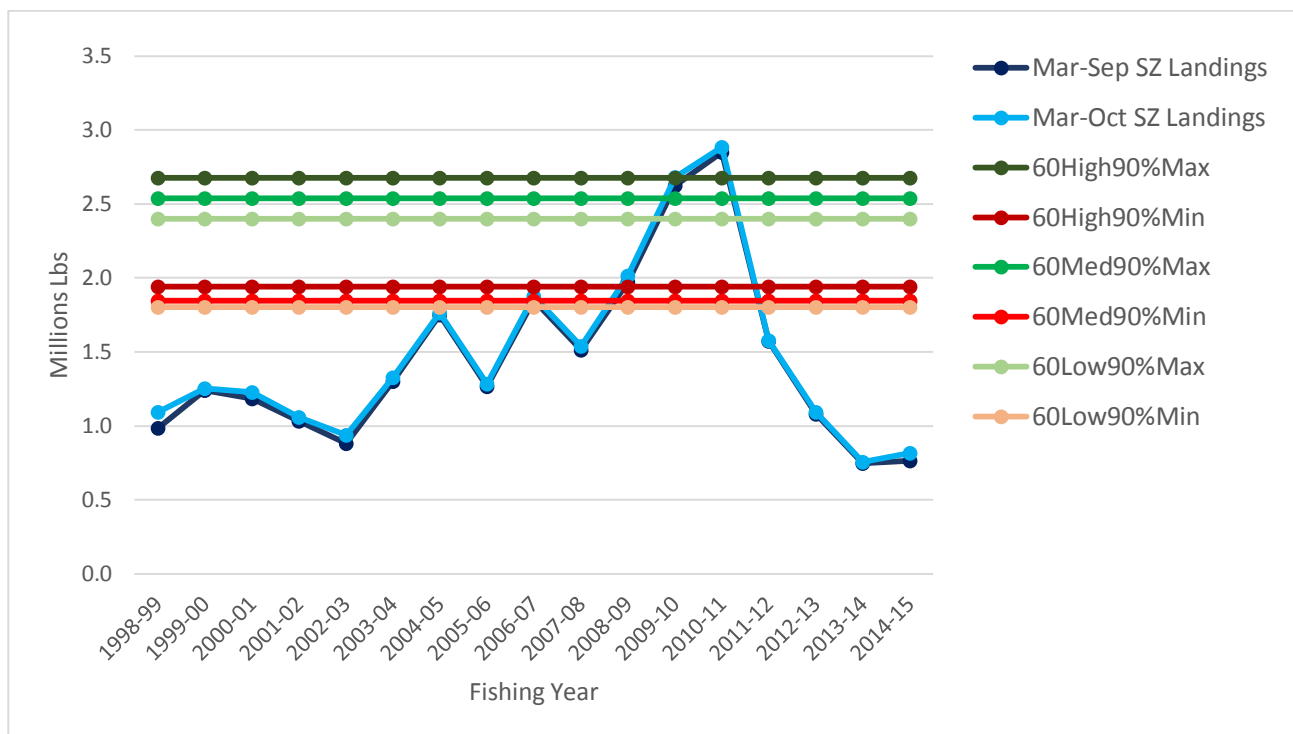


Figure B-5. Comparison of landings in March-September (Alt 2) and March-October (Alt 3) to the highest and lowest possible season 1 quotas under ACL=90%ABC (Action 2-2, Alternative 5). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

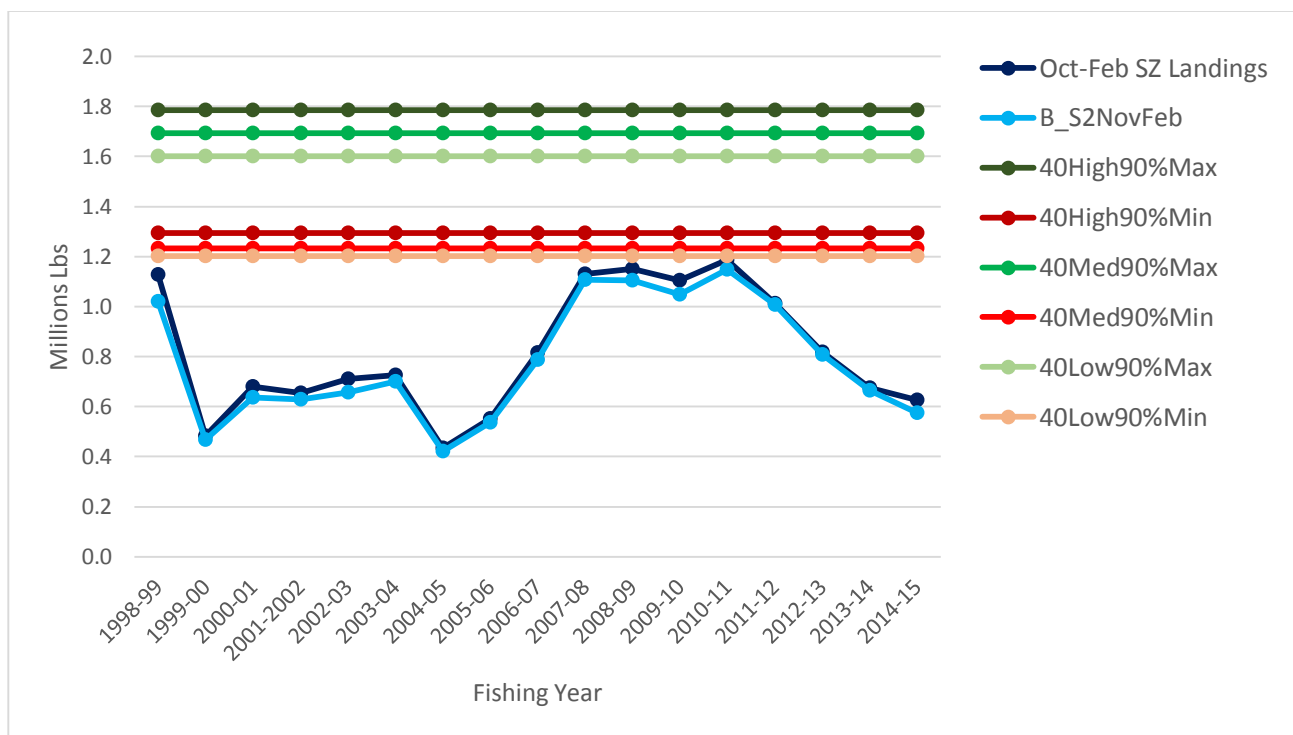


Figure B-6. Comparison of landings in October-February (Alt 2) and November-February (Alt 3) to the highest and lowest possible season 2 quotas under ACL=90%ABC (Action 2-2, Alternative 5). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

Table B-4. Possible outcomes under **Alternative 4** in Action 4 based on Alternative 2 in Action 2-2 (Atlantic king mackerel ACL=ABC). The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under this alternative, the season 1 quota would and the season 2 quota would each be 50%.

ACL = ABC HIGH Recruitment Scenario Action 2-1, SA Preferred Alt 2		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	5,002,400	2,501,200
2017/18	4,540,640	2,270,320
2018/19	4,001,920	2,000,960
2019/20	3,617,120	1,808,560
ACL = ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	4,694,560	2,347,280
2017/18	4,078,880	2,039,440
2018/19	3,694,080	1,847,040
2019/20	3,463,200	1,731,600
ACL = ABC LOW Recruitment Scenario Action 2-1, Alt 4		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	4,386,720	2,193,360
2017/18	3,694,080	1,847,040
2018/19	3,386,240	1,693,120
2019/20	3,309,280	1,654,640

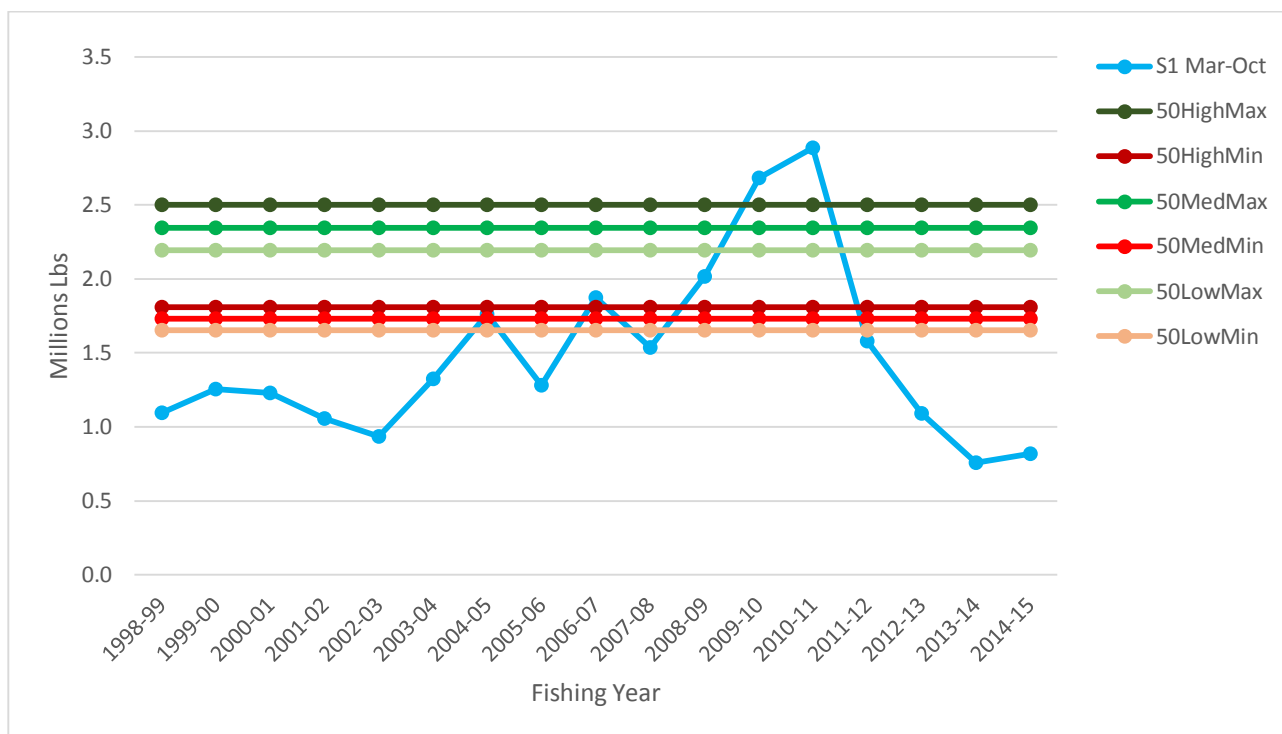


Figure B-7. Comparison of landings in March-October (Alt 4) to the highest and lowest possible season 1 quotas under ACL=ABC (Action 2-2, Alternative 2). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

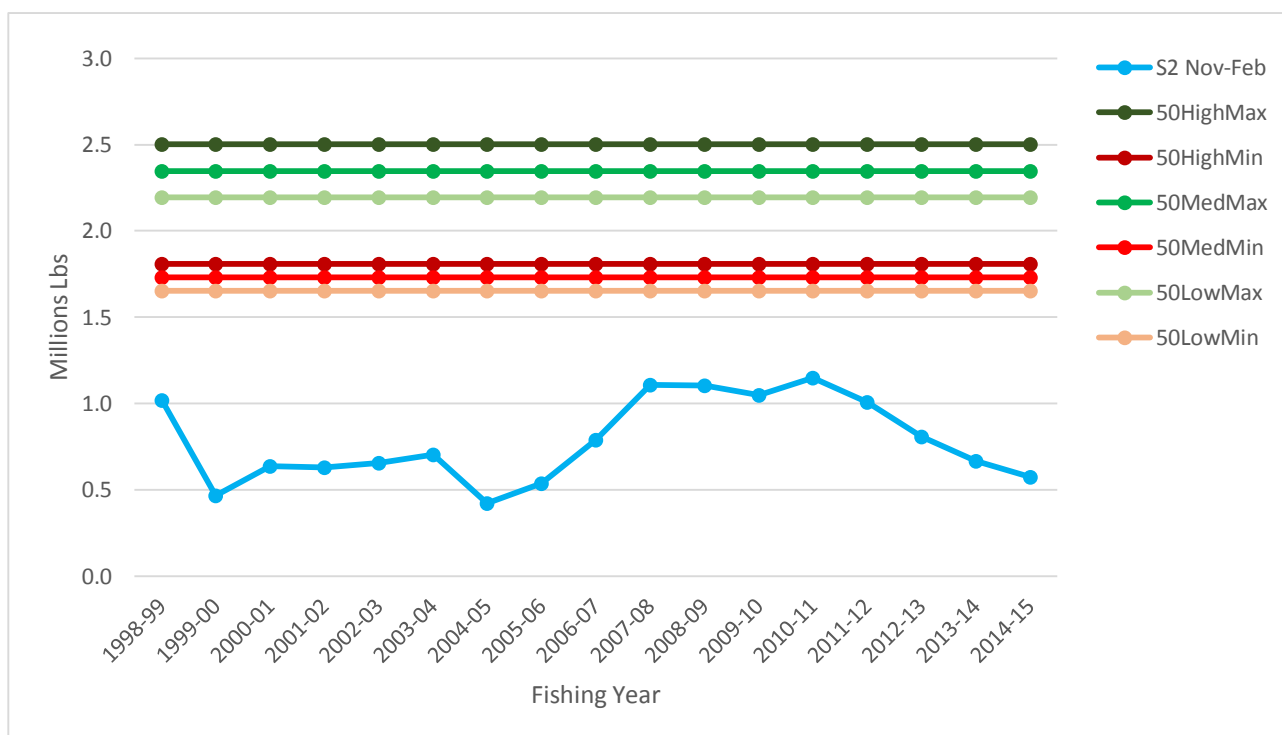


Figure B-8. Comparison of landings in November-February (Alt 4) to the highest and lowest possible season 2 quotas under ACL=ABC (Action 2-2, Alternative 2). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

Table B-5. Possible outcomes (lbs) under **Alternative 4** in Action 4 based on **South Atlantic Preferred** Alternative 3 and Alternative 4 in Action 2-2. The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under these two alternatives, the season 1 quota the season 2 quota would each be 50%.

	South Atlantic Preferred Alternative 3 (Action 2-2) ACL=Deterministic Equilibrium Yield at $F_{30\%SPR}^4$		Alternative 4 (Action 2-2) ACL=75% Deterministic Equilibrium Yield at $F_{30\%SPR}^4$	
	Total SZ Quota	Season 1 and Season 2 (50%)	Total SZ Quota	Season 1 and Season 2 (50%)
2016/17	3,617,120	1,808,560	3,309,280	1,654,640
2017/18				
2018/19				
2019/20				



Figure B-9. Comparison of landings in March-October (Alt 4) to the season 1 quota under Action 2-2, **South Atlantic Preferred** Alternative 3 and Alternative 4.

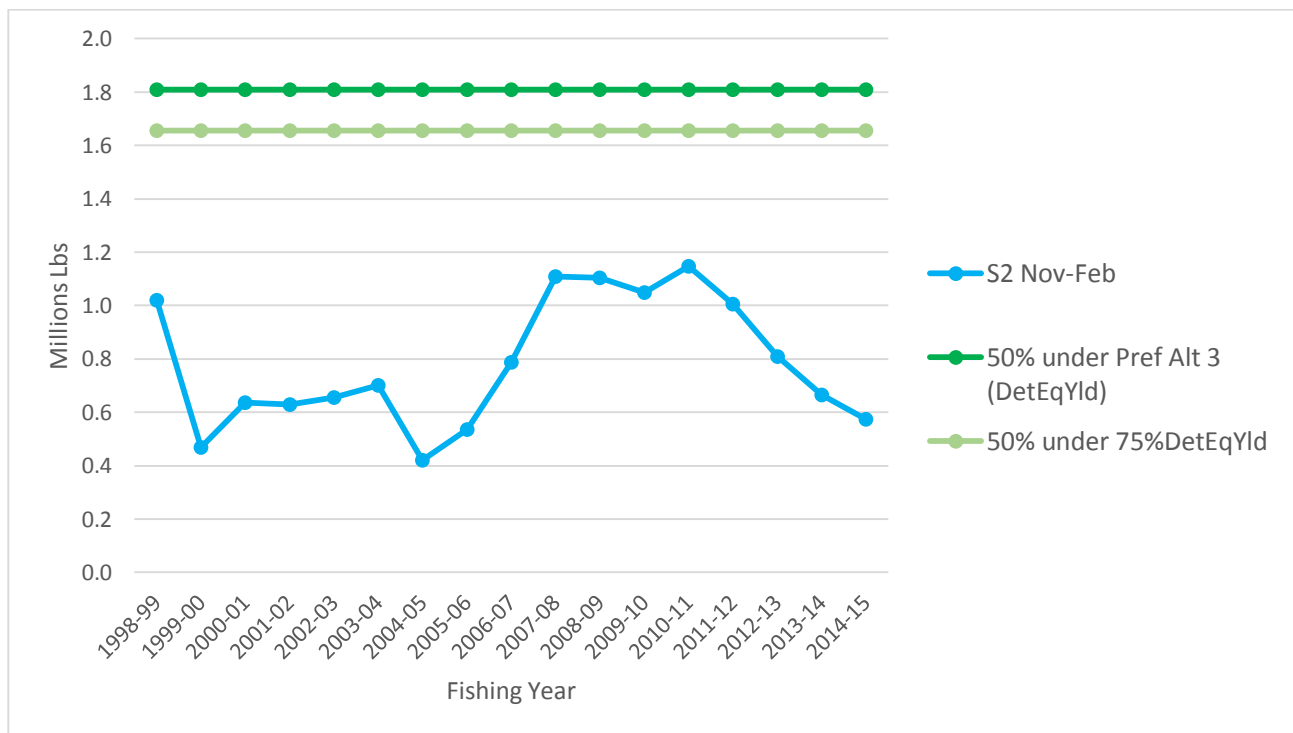


Figure B-10. Comparison of landings in November-February (Alt 4) to the season 2 quota under Action 2-2, **South Atlantic Preferred** Alternative 3 and Alternative 4.

Table B-5. Possible outcomes under **Alternative 4** in Action 4 based on Alternative 4 in Action 2-2 (Atlantic king mackerel ACL=90%ABC). The Southern Zone quota allocation is 76.96% of the commercial ACL for Atlantic king mackerel (see Appendix E in the draft Amendment 26 for details on how the Northern and Southern Zone quota allocations were recalculated using the SEDAR 38 boundary). Under this alternative, the season 1 quota would and the season 2 quota would each be 50%.

ACL = 90% ABC HIGH Recruitment Scenario Action 2-1, SA Preferred Alt 2		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	4,463,680	2,231,840
2017/18	4,078,880	2,039,440
2018/19	3,617,120	1,808,560
2019/20	3,232,320	1,616,160
ACL = 90% ABC MEDIUM Recruitment Scenario Action 2-1, Alt 3		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	4,232,800	2,116,400
2017/18	3,694,080	1,847,040
2018/19	3,309,280	1,654,640
2019/20	3,078,400	1,539,200
ACL = 90% ABC LOW Recruitment Scenario Action 2-1, Alt 4		
Fishing year	Southern Zone Quota	Season 1 and Season 2 (50%)
2016/17	4,001,920	2,000,960
2017/18	3,309,280	1,654,640
2018/19	3,078,400	1,539,200
2019/20	3,001,440	1,500,720

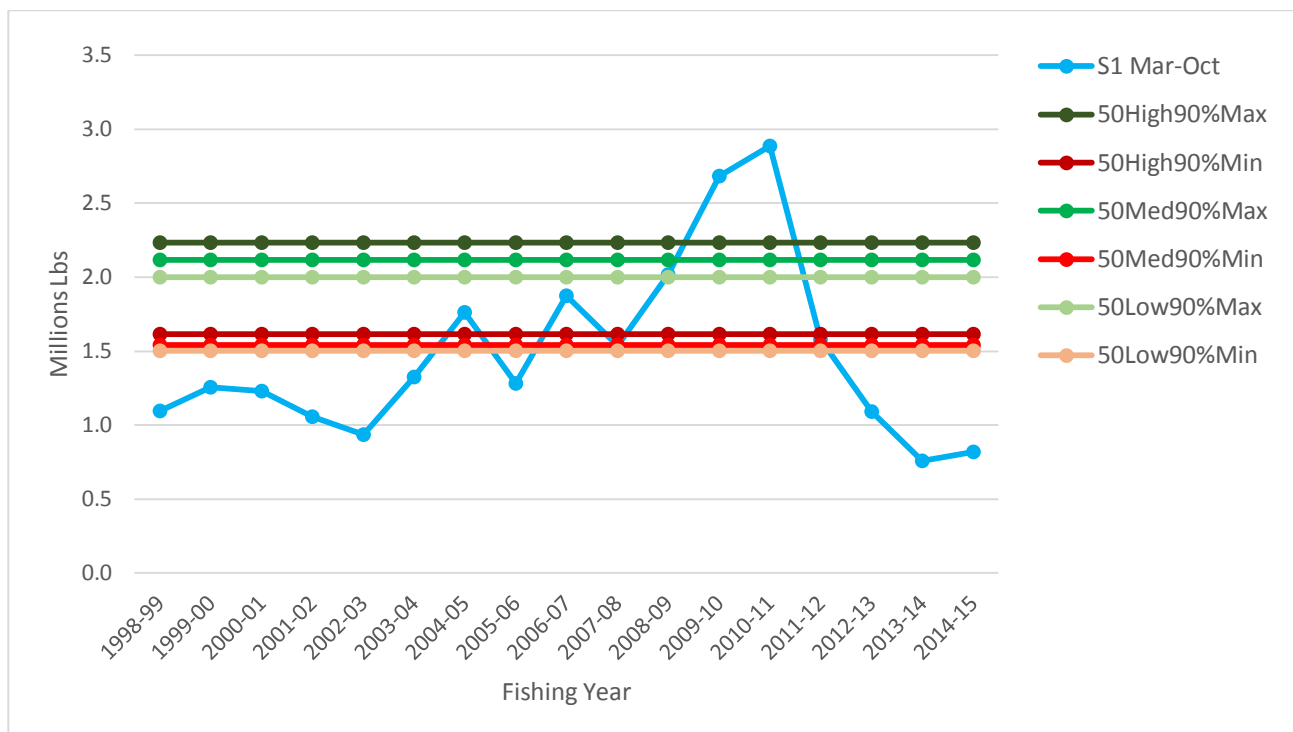


Figure B-11. Comparison of landings in March-October (Alt 4) to the highest and lowest possible season 1 quotas under ACL=90%ABC (Action 2-2, Alternative 4). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.

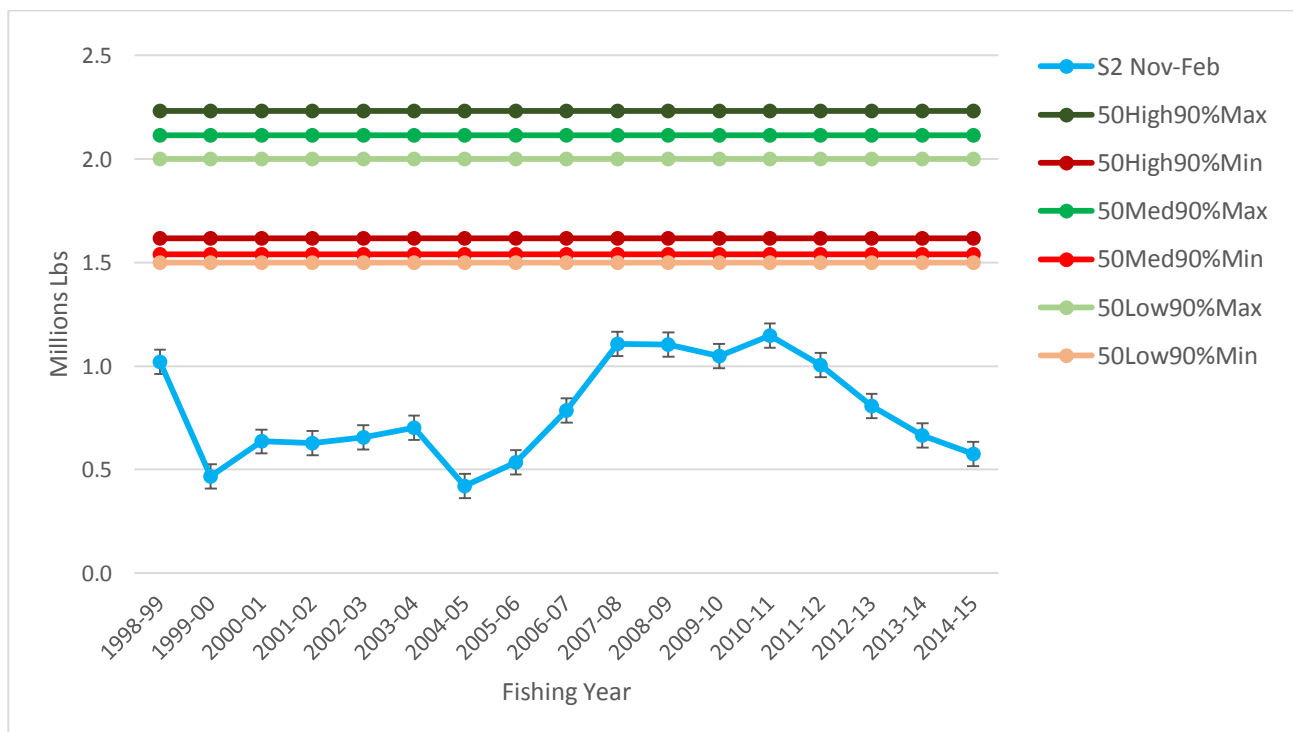


Figure B-12. Comparison of landings in November-February (Alt 4) to the highest and lowest possible season 2 quotas under ACL=90%ABC (Action 2-2, Alternative 4). High/Med/Low indicates ACL under High, Medium or Low recruitment, and Max/Min indicates the maximum and minimum ACLs for each.