



# Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201  
703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

---

## MEMORANDUM

January 27, 2020

**To: South Atlantic State/Federal Fisheries Management Board**  
**From: Cobia Technical Committee**  
**RE: Recommendations for Atlantic Cobia Harvest Quota**

In January, 2020, a benchmark stock assessment for Atlantic cobia was completed through the Southeast Data, Assessment, and Review (SEDAR) 58 process. Projections of spawning stock biomass, fishing mortality, and removals through 2024 were provided in the assessment report.

Upon review of these projections, the Cobia Technical Committee (TC) requested additional projections from the SEDAR 58 Analytical Team that update the 2018 estimate of removals with harvest data finalized after the assessment's terminal year and re-estimate the 2019 removals as an average of the harvests from 2016-2018. Dead discards were estimated as 13.3% of total harvest, based on a weighted average of annual discard ratios from 2015-2017 (the assessment's 3 terminal years). This discard ratio is recommended for use throughout all projections discussed and was added to the harvest estimates used in the projection to estimate the total removals. Using the updated values for 2018-19 removals, the additional projections include fishing mortalities ( $F$ ) set at  $F_{\text{current}}$  (0.15),  $F_{40\%}$  (0.65), 75%  $F_{40\%}$  (0.49), 50%  $F_{40\%}$  (0.33), and 25%  $F_{40\%}$  (0.16), as well as constant annual harvests for the projected timeframe set at 2, 2.4, 2.8, and 3.7 million pounds (with total removals calculated as the harvest plus estimated dead discards). Results of each requested run are shown in the Projection Report attached to this memo.

The TC's discussion of additional runs focused on the stochastic projection trends in spawning stock biomass ( $S_{\text{med}}$ ) and probability of the stock becoming overfished (pr.overfished). Due to the declining trends in spawning stock biomass through the assessment's terminal year, projected continued declines through 2019, and uncertainties outlined within the assessment report, the TC recommends a precautionary approach in selecting a total harvest quota. The TC recommends that the Board give preferred consideration to harvests projected through the  $F_{\text{current}}$ , 25%  $F_{40\%}$ , and 2 million pound constant harvest runs. In each of these runs,  $S_{\text{med}}$  increases throughout the projected timeframe (2020-24). The TC estimated constant harvest under the  $F$ -based projections to be the average removals during the projected timeframe minus estimated discards.

The projection with the highest harvest that maintained harvest relatively close to its 2019 level was the constant harvest at 2.4 million pounds, the average of the 2016-2018 harvests. The TC

M20-012

recommends this harvest level as a maximum for the Board’s consideration, noting a slight decrease in S.med and increasing pr.overfished up to 0.25 throughout the projected timeframe.

Finally, the TC recommends that the Board specify the total harvest quota in numbers of fish, then use the average of annual coastwide commercial average weights from 2015-17 (22.8 pounds) to convert the commercial quota from numbers to pounds. Final harvest quotas and allocations to the recreational and commercial fisheries according to Amendment 1 using the recommended projections are shown in the table below.

<b>Projection</b>	<b>Total Harvest Quota (fish)</b>	<b>Recreational Quota (fish)</b>	<b>Commercial Quota (pounds)</b>
F <sub>current</sub>	53,467*	49,190	97,595
25% F <sub>40%</sub>	57,526*	52,924	105,003
Harvest = 2 mil lb	65,819*	60,554	120,142
Harvest = 2.4 mil lb	80,112	73,703	146,232

\*Preferred by TC

To: Mike Schmidtke, ASMFC  
From: Katie Siegfried, lead analyst for Cobia, SEFSC  
Re: Cobia Projection request

Dear Mike,

In response to your request for additional Cobia projections, we are providing you with the following document. Please let us know if you or the Technical Committee have any questions or require additional assistance.

We have responded to your requests in italics below each bullet:

- Annual ratios of dead discards to landings for the base run. We're trying to estimate how much of the landings in the projection tables are dead discards. In doing this, please also average the ratios for 2015-2017 (current discard ratio).

*The attached file, "Calculating discard ratios.xlsx", contains the dead discard ratios for each year, and the averaged (over 2015-2017) "current" discard ratio. In the spreadsheet, the weighted discard ratio is highlighted in green. The commercial discards are reported in lb. and the recreational discards are reported in numbers. We used the units each is reported in to calculate the discard ratios. I did calculate the commercial discard ratio in numbers as well, but it is likely less accurate. It's worth noting that discards, especially commercial discards for cobia, are highly uncertain.*

- For all requested projections, recalculate landings (landings + dead discards) estimates for 2018 and 2019. For 2018, please use 3,231,501 pounds + current discard ratio \* 3,231,501 pounds. For 2019, please use 2,410,848 pounds + current discard ratio \* 2,410,848 pounds. The 3.2 million number is the 2018 landings and the 2019 number is the average landings from 2016-2018.

*The interim landings adjusted for the discarding ratios are highlighted in blue in the attached spreadsheet.*

- Re-run the provided projections (F<sub>current</sub>, F<sub>40</sub>, and 75% F<sub>40</sub>) with the 2018 and 2019 values in #2.

*These runs are called F<sub>current</sub>, F<sub>40</sub>, and 75%F<sub>40</sub>, and the results are appended below in figures and tables 1, 2 and 3 respectively.*

- Additional F-based projections, all with the above 2018 and 2019 landings values: F=50% F<sub>40</sub>; F=25% F<sub>40</sub>

*These runs are called 50%F<sub>40</sub> and 25%F<sub>40</sub>, and the results are appended below in figures and tables 4 and 5 respectively.*

- Constant harvest projections (for all projections, add discards estimated as the annual harvest \* current discard ratio): Annual harvest = 2 million pounds; Annual harvest = 2,410,848 pounds; Annual harvest = 2,821,695 pounds; Annual harvest = 3,711,695 pounds

The constant harvest values used in these projections (the annual harvest + discard estimate) are highlighted in orange in the attached spreadsheet. These runs are called “Lconstant-” followed by the number of pounds used in the harvest projection, and the results are contained in figures and tables 6,7,8 and 9 respectively.

- For all projections, please provide similar information as that provided in Tables 18-20 of the Post-Review Report (annual F, SSB, landings, etc.) and Table 2 of the Review Report (proportion of stochastic runs where  $SSB < SSB_{F40}$ ).

All figures and tables are appended below, and the pr.overfished values are the proportion of runs below the  $L_{F40\%}$  benchmark.

We would like to add that the error on the constant catch scenarios grows quite large in the last couple years of the projections. With the constant catch scenarios, that model sometimes runs out of fish causing increased uncertainty in the projections. The constant catch scenario results are only robust for a few years following the terminal year of the assessment.

Table 1. Projection results with fishing mortality rate fixed at  $F = F_{current}$  starting in 2020. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.08
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.14
2020	1796	1389	0.1	0.15	5961	5032	45	57	1437	1777	0.14
2021	1796	1382	0.1	0.15	6218	5164	49	59	1525	1832	0.12
2022	1796	1385	0.1	0.15	6418	5293	51	61	1592	1887	0.1
2023	1796	1380	0.1	0.15	6565	5370	52	63	1640	1931	0.09
2024	1796	1383	0.1	0.15	6670	5427	53	63	1674	1960	0.08

Table 2. Projection results with fishing mortality rate fixed at  $F = F_{40\%}$  starting in 2020. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.21

2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.26
2020	1796	1389	0.69	0.65	4949	4293	249	208	7821	6362	0.32
2021	1796	1382	0.69	0.65	4072	3590	204	169	5862	4915	0.41
2022	1796	1385	0.69	0.65	3737	3328	187	156	5109	4290	0.46
2023	1796	1380	0.69	0.65	3611	3228	181	150	4825	4070	0.49
2024	1796	1383	0.69	0.65	3564	3199	179	149	4718	3978	0.5

Table 3. Projection results with fishing mortality rate fixed at  $F = 75\%F_{40\%}$  starting in 2020. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.21
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.26
2020	1796	1389	0.52	0.49	5221	4518	198	165	6248	5064	0.29
2021	1796	1382	0.52	0.49	4554	4007	174	145	5142	4294	0.33
2022	1796	1385	0.52	0.49	4255	3784	164	136	4644	3893	0.36
2023	1796	1380	0.52	0.49	4123	3687	160	133	4421	3724	0.37
2024	1796	1383	0.52	0.49	4064	3652	158	131	4322	3655	0.37

Table 4. Projection results with fishing mortality rate fixed at  $F = 50\%F_{40\%}$  starting in 2020. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.21
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.26
2020	1796	1389	0.35	0.33	5512	4759	140	117	4447	3592	0.27
2021	1796	1382	0.35	0.33	5144	4513	134	111	4046	3352	0.26
2022	1796	1385	0.35	0.33	4955	4401	130	108	3840	3208	0.25
2023	1796	1380	0.35	0.33	4859	4341	129	107	3732	3137	0.24
2024	1796	1383	0.35	0.33	4809	4320	128	107	3676	3112	0.23

Table 5. Projection results with fishing mortality rate fixed at  $F = 25\%F_{40\%}$  starting in 2020. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.21
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.26
2020	1796	1389	0.17	0.16	5825	5015	74	62	2379	1913	0.24
2021	1796	1382	0.17	0.16	5870	5131	78	64	2410	1980	0.2
2022	1796	1385	0.17	0.16	5918	5239	80	66	2440	2025	0.16
2023	1796	1380	0.17	0.16	5956	5307	81	67	2461	2058	0.13
2024	1796	1383	0.17	0.16	5984	5368	81	67	2476	2086	0.1

Table 6. Projection results with fixed total removals = 2,266,817 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the  $L_{40\%}$  benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.08
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.14
2020	1796	1389	0.16	0.19	5842	4972	71	74	2267	2267	0.16
2021	1796	1382	0.16	0.19	5917	5014	73	74	2267	2267	0.17
2022	1796	1385	0.16	0.19	5997	5082	74	75	2267	2267	0.18
2023	1796	1380	0.16	0.19	6066	5126	74	75	2267	2267	0.18
2024	1796	1383	0.15	0.18	6123	5195	74	75	2267	2267	0.18

Table 7. Projection results with fixed total removals = 2,732,475 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the L<sub>40%</sub> benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.08
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.14
2020	1796	1389	0.2	0.24	5773	4903	86	89	2732	2732	0.18
2021	1796	1382	0.2	0.24	5741	4835	89	90	2732	2732	0.21
2022	1796	1385	0.2	0.24	5736	4815	90	91	2732	2732	0.23
2023	1796	1380	0.2	0.24	5740	4792	90	92	2732	2732	0.24
2024	1796	1383	0.2	0.25	5747	4807	90	92	2732	2732	0.25

Table 8. Projection results with fixed total removals = 3,198,133 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the L<sub>40%</sub> benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base (mt)	S.med (mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.08
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.14
2020	1796	1389	0.24	0.28	5704	4833	100	104	3198	3198	0.19
2021	1796	1382	0.25	0.3	5563	4655	104	106	3198	3198	0.24
2022	1796	1385	0.25	0.31	5474	4551	106	108	3198	3198	0.28
2023	1796	1380	0.26	0.32	5414	4457	107	109	3198	3198	0.3
2024	1796	1383	0.26	0.32	5371	4421	108	110	3198	3198	0.32

Table 9. Projection results with fixed total removals = 4,206,866 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = removals (landings and dead discards) expressed in numbers (n, in 1000s) or whole weight (w, in 1000 lb). The extension b indicates expected values (deterministic) from the base run; the extension med indicates median values from the stochastic projections. The pr.overfished indicates the number of runs below the L<sub>40%</sub> benchmark.

year	R.base (1000)	R.med (1000)	F.base	F.med	S.base(mt)	S.med(mt)	L.base (1000)	L.med (1000)	L.base (1000 lb)	L.med (1000 lb)	pr.overfished
2018	1796	1399	0.22	0.28	6520	5235	107	109	3664	3664	0.08
2019	1796	1377	0.19	0.24	5874	4969	82	86	2742	2742	0.14
2020	1796	1389	0.33	0.39	5550	4676	132	137	4207	4207	0.23
2021	1796	1382	0.36	0.44	5175	4261	139	142	4207	4207	0.32
2022	1796	1385	0.38	0.49	4904	3968	143	146	4207	4207	0.39
2023	1796	1380	0.41	0.54	4704	3726	146	150	4207	4207	0.43
2024	1796	1383	0.43	0.58	4553	3586	148	152	4207	4207	0.46



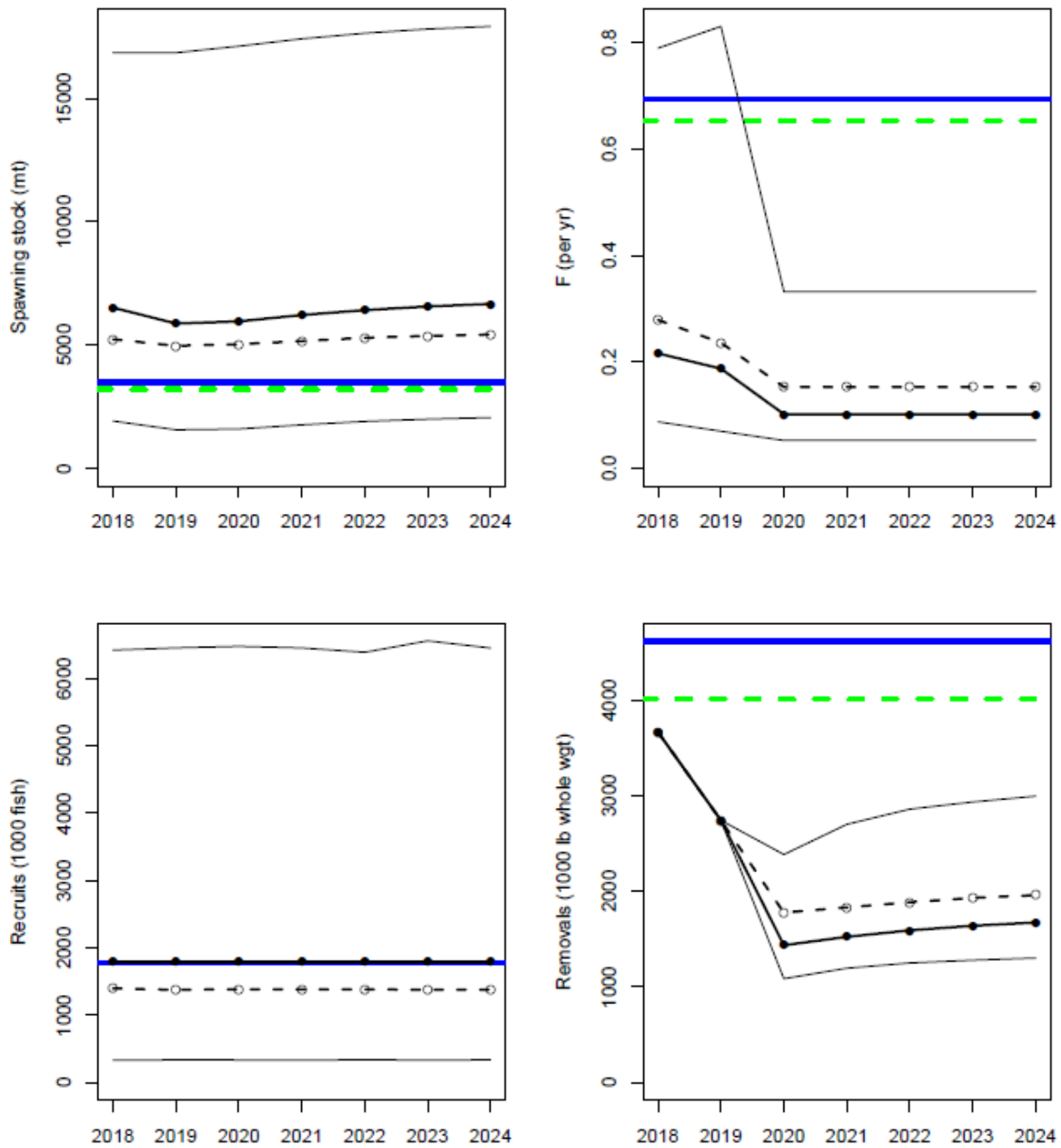


Figure 1. Fishing mortality rate fixed at  $F = F_{\text{current}}$ , with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

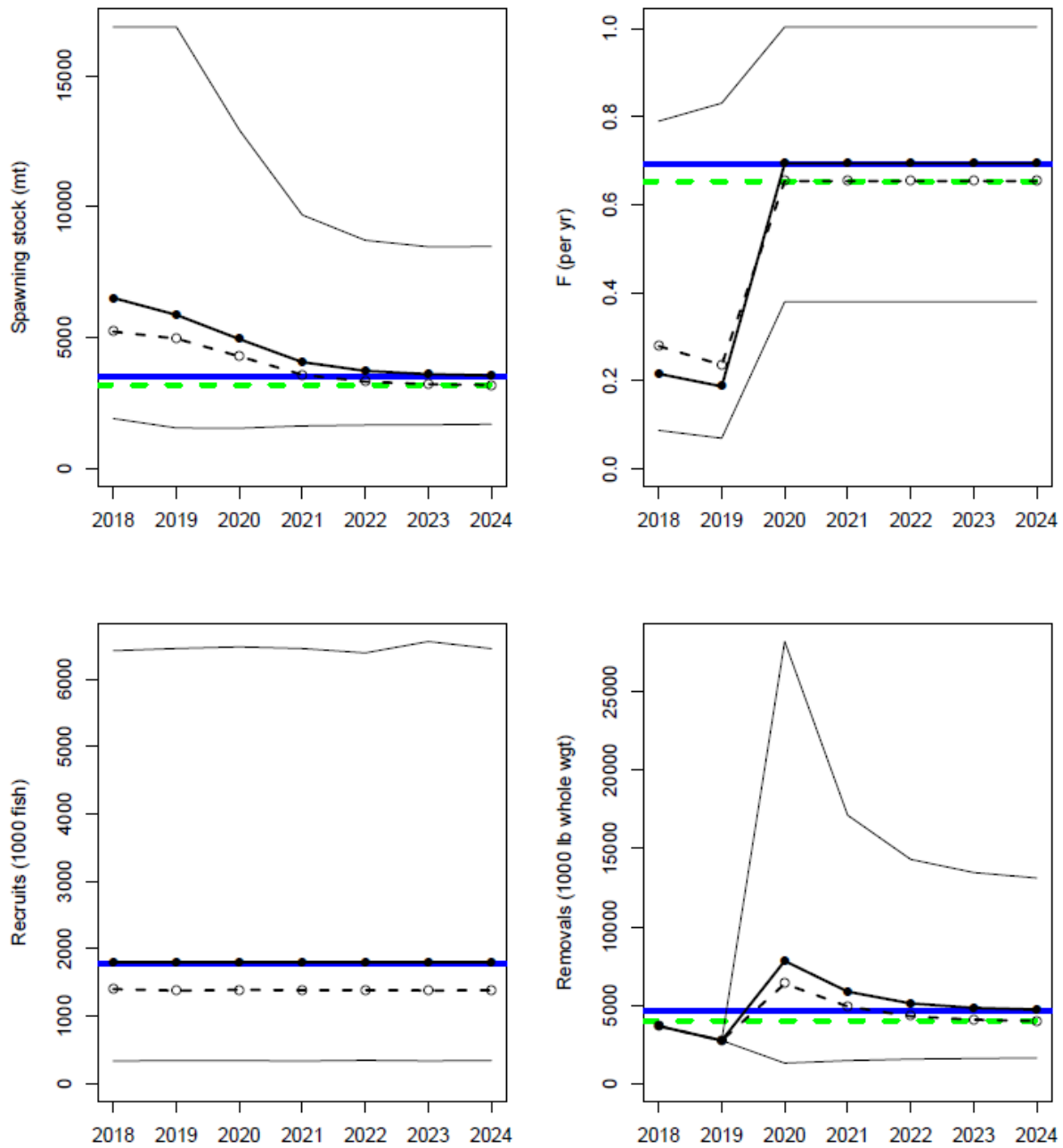


Figure 2. Fishing mortality rate fixed at  $F = F_{40\%}$ , with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

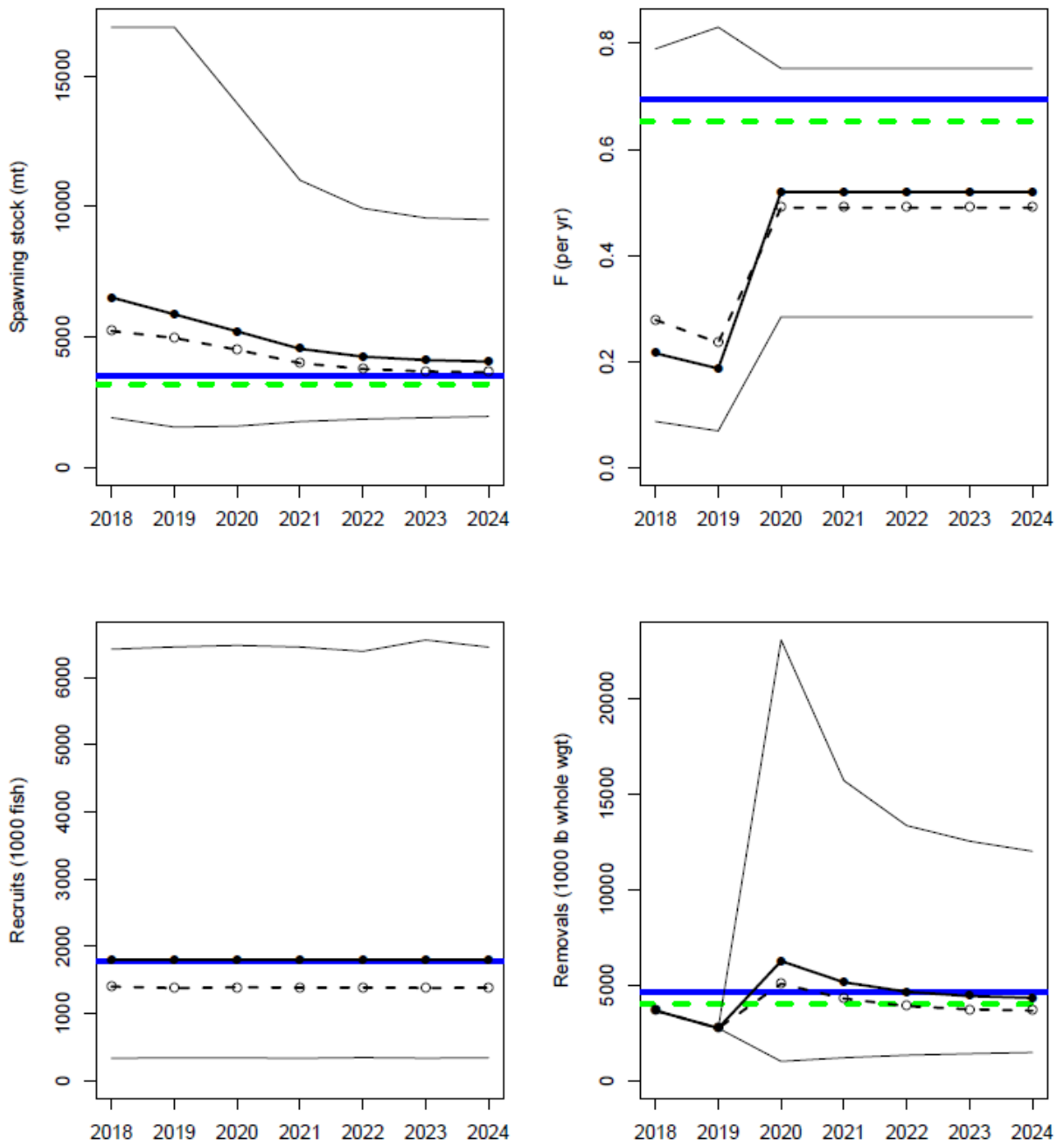


Figure 3. Fishing mortality rate fixed at  $F = 75\%F_{40\%}$ , with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

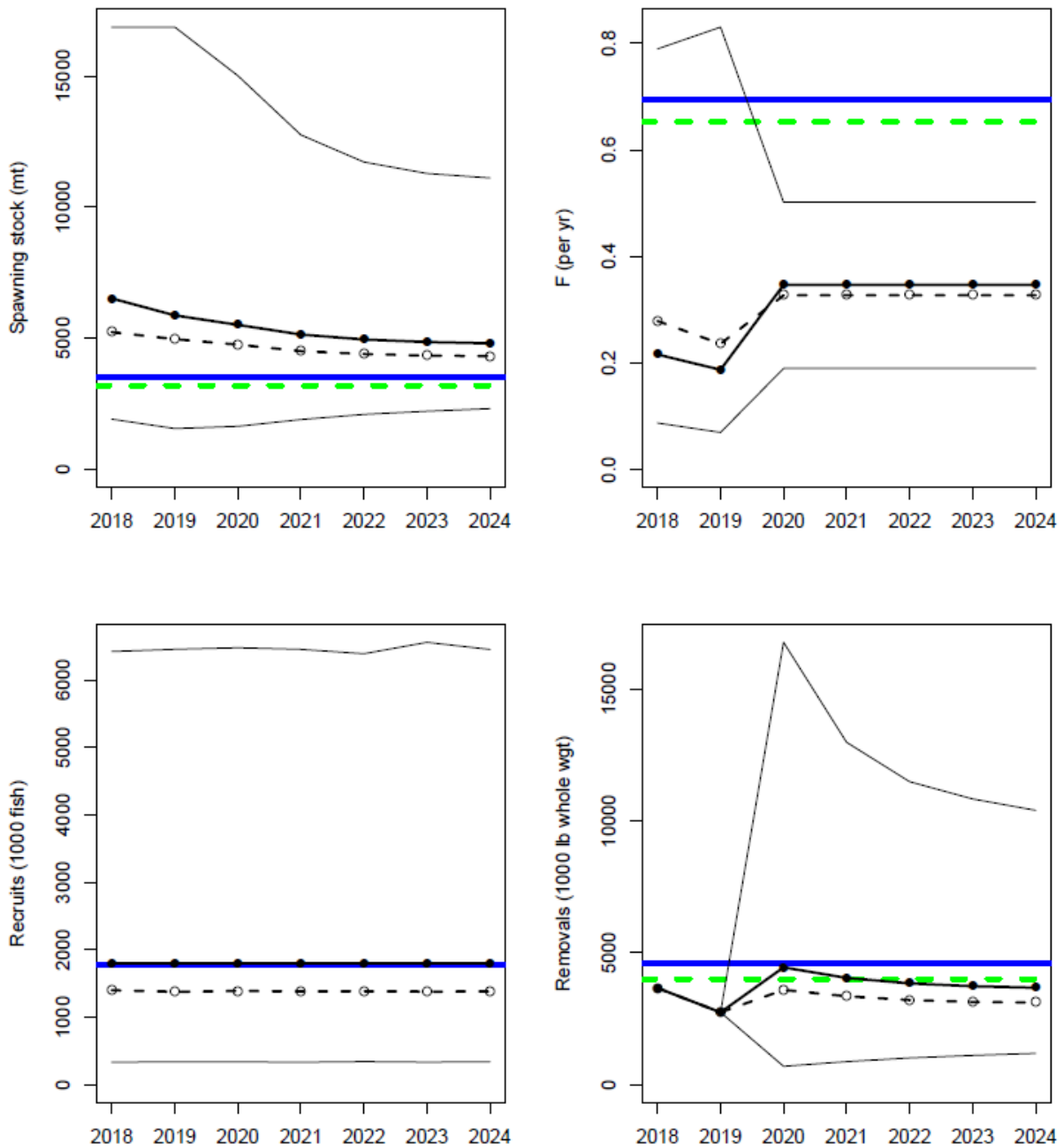


Figure 4. Fishing mortality rate fixed at  $F = 50\%F_{40\%}$ , with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

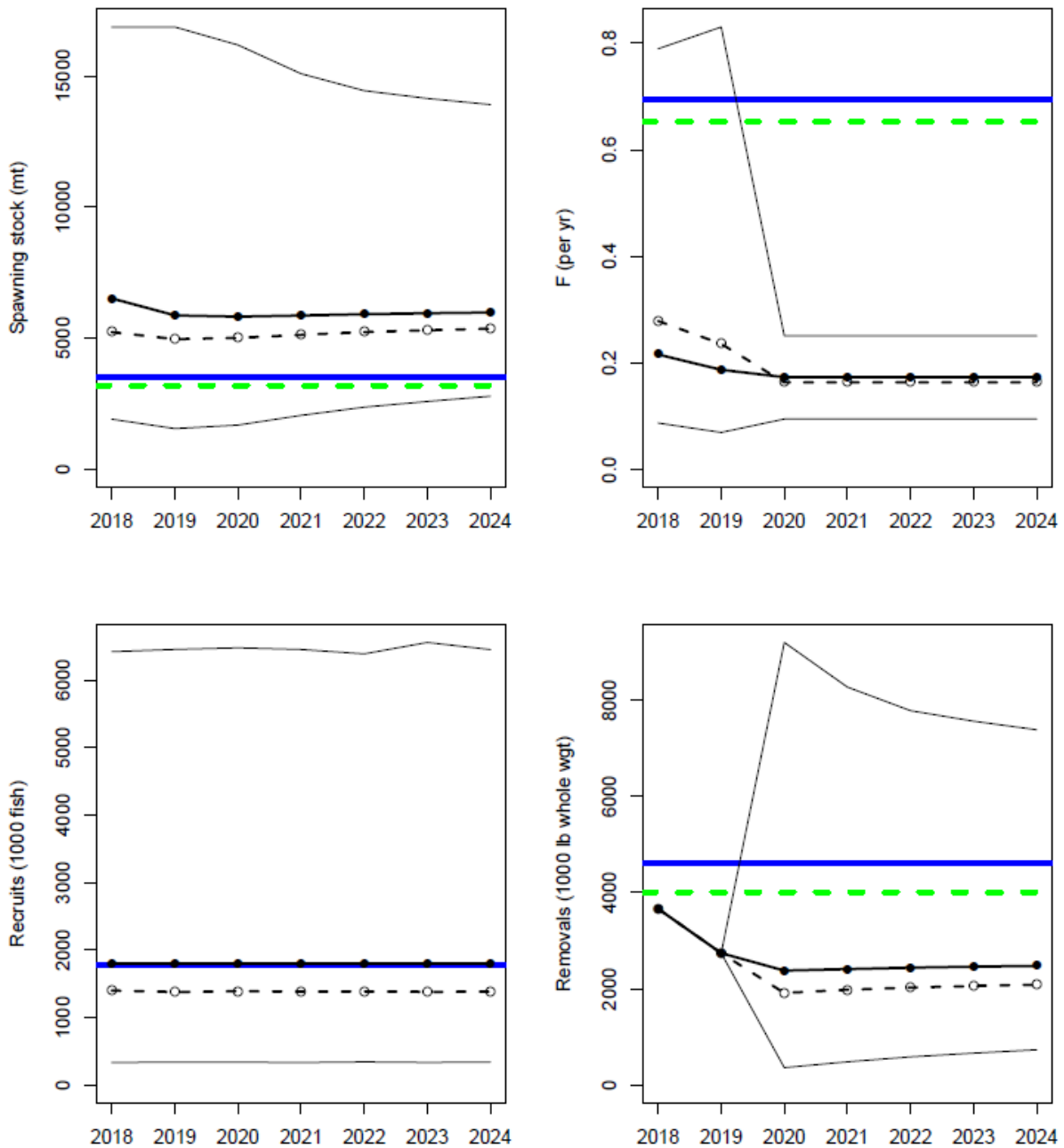


Figure 5. Fishing mortality rate fixed at  $F = 25\%F_{40\%}$ , with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

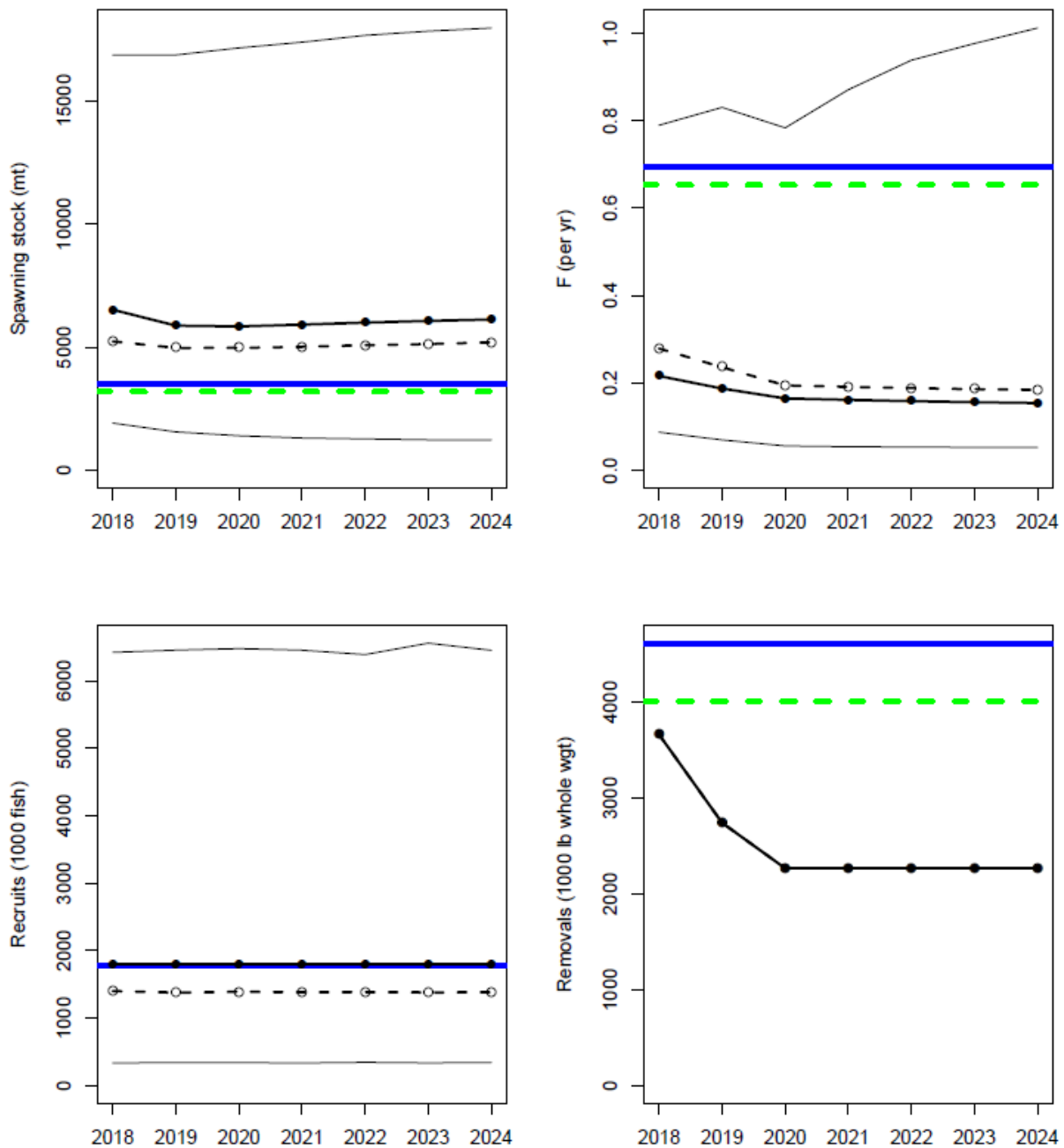


Figure 6. Harvest fixed at total removals = 2,266,817 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

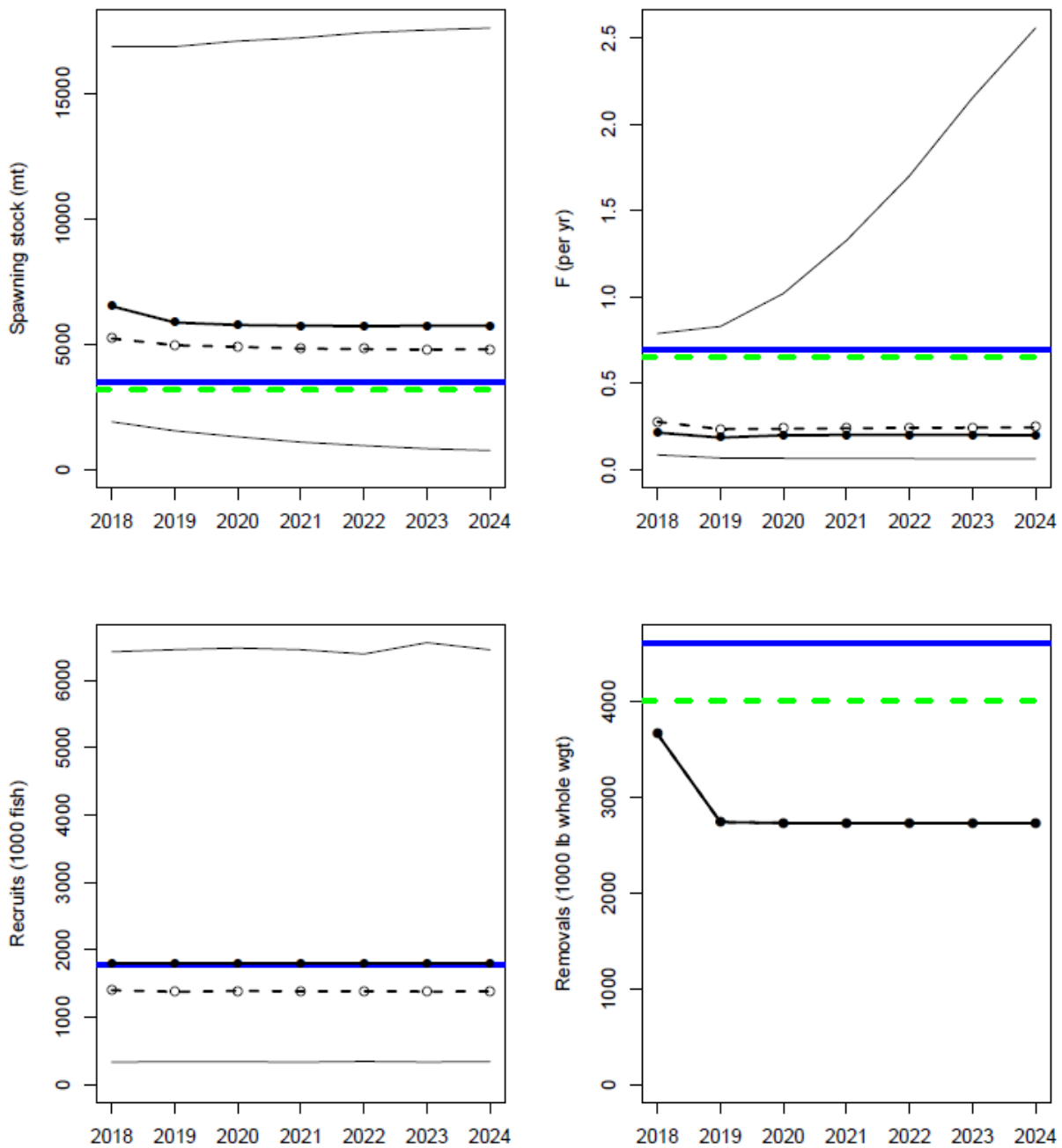


Figure 7. Harvest fixed at total removals = 2,732,475 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

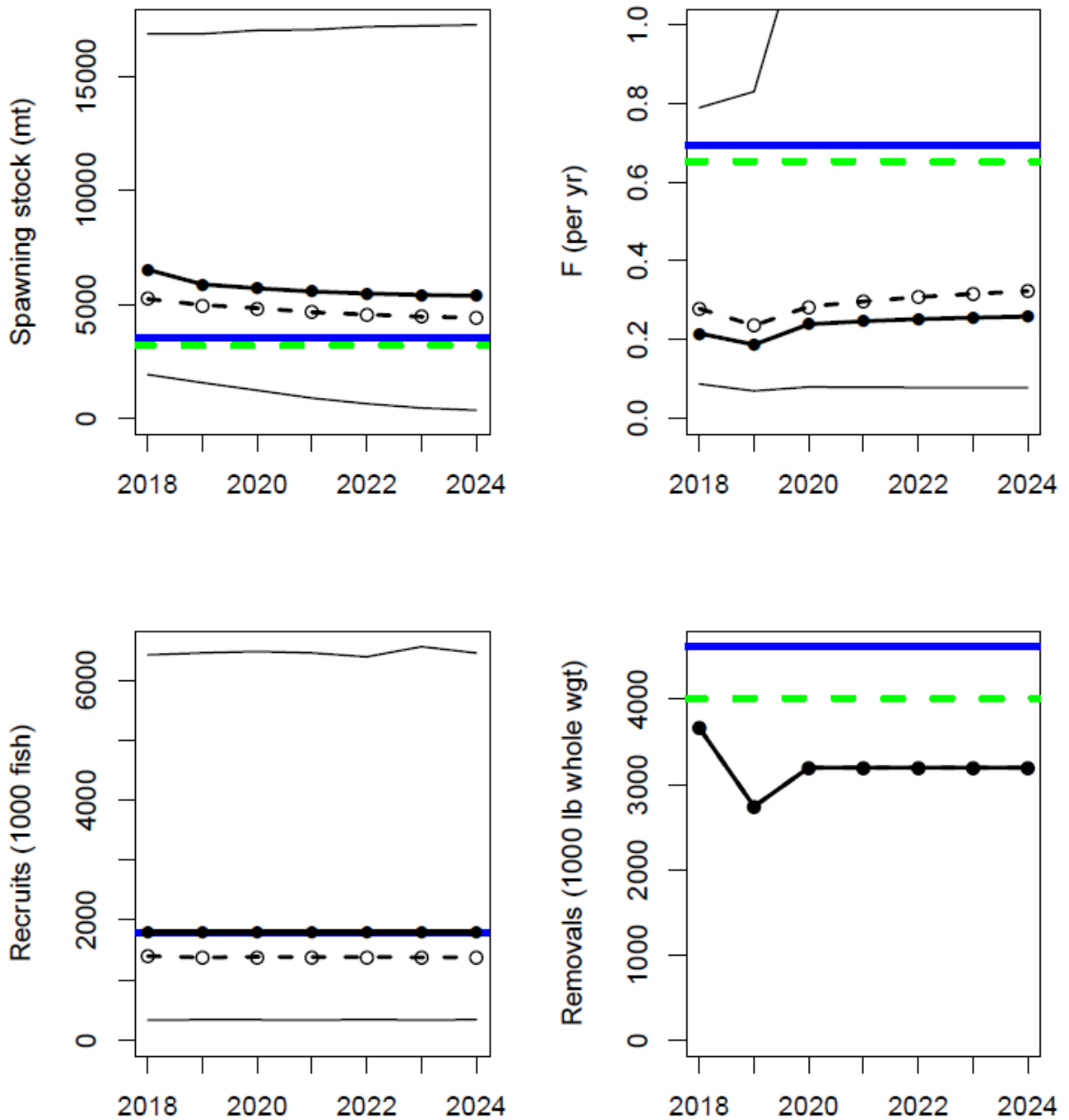


Figure 8. Harvest fixed at total removals = 3,198,133 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.



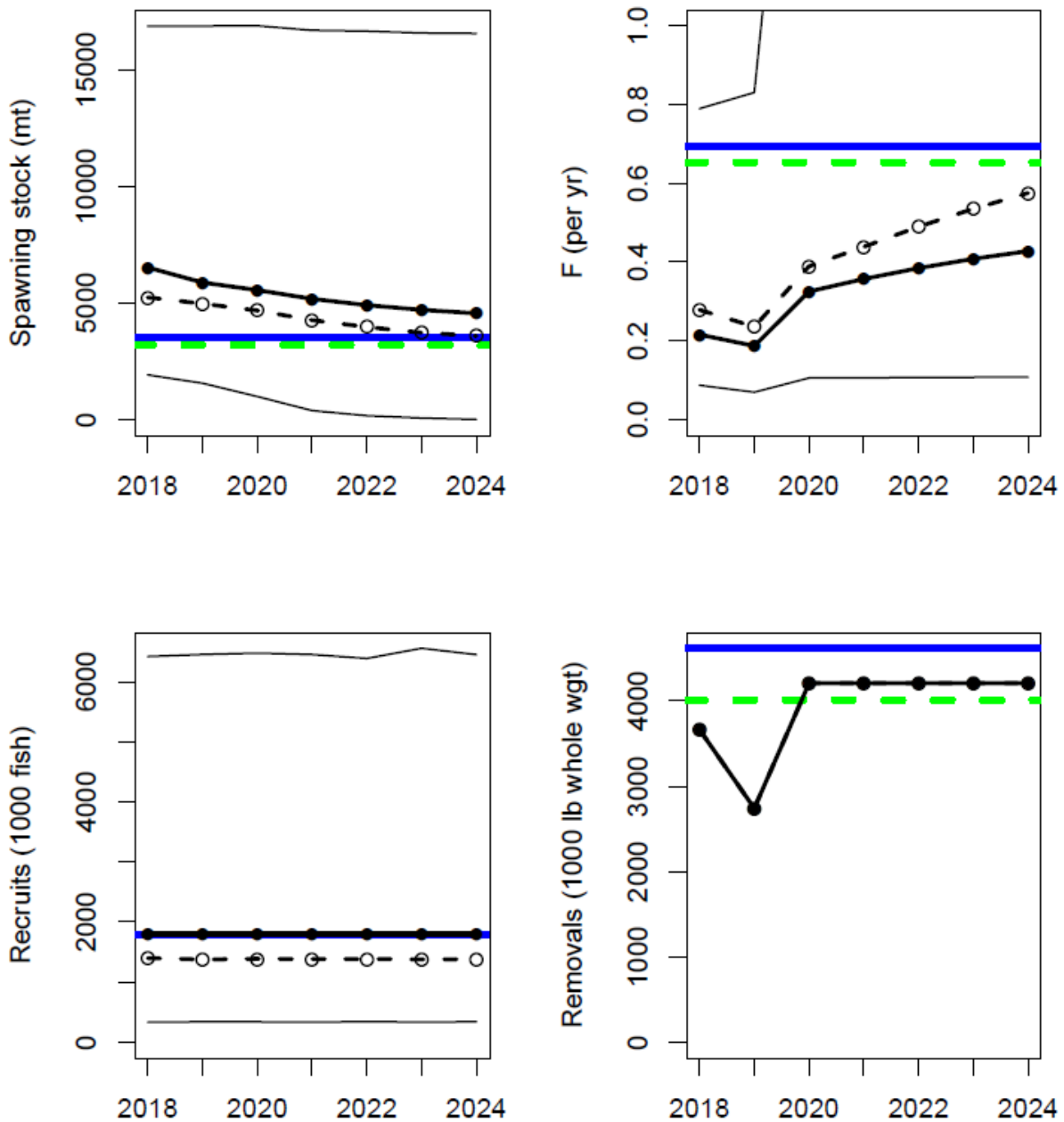


Figure 9. Harvest fixed at total removals = 4,206,866 from 2020 through 2024, with 2020 as the first year of new regulations. The interim years (2018 and 2019) use the values requested by the ASMFC with the added discard estimate. In all panels, expected values represented by solid lines, median values represented by dashed lines, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Horizontal lines mark LF40%-related quantities from the base run (solid blue lines) and medians from the ensemble model runs (dashed green lines). Spawning stock (SSB) is at time of peak spawning.

**Summary of Public Comment on Draft Addendum III to Amendment 1 to Interstate Fishery Management Plan for Atlantic Croaker and Draft Addendum III to the Omnibus Amendment to the Interstate Fishery Management Plans for Spanish Mackerel, Spot, and Spotted Seatrout**

***Revisions to Atlantic Croaker and Spot Management using the Traffic Light Approach***

The Public Comment period for Draft Addendum III to Amendment 1 to Interstate Fishery Management Plan (FMP) for Atlantic Croaker (Atlantic Croaker Draft Addendum III) and Draft Addendum III to the Omnibus Amendment to the Interstate FMPs for Spanish Mackerel, Spot, and Spotted Seatrout (Spot Draft Addendum III) closed on January 11, 2020. Due to the synchronized schedules and overlap of comments for both species, comments are attributed to only one of the species if specified. Comments were submitted by 18 individuals and 3 organizations, the Coastal Conservation Association (CCA), North Carolina Watermen United (NCWU), and the Virginia Saltwater Sportfishing Association (VSSA). Comments are described below according to numbered issues from each draft addendum, along with general comments provided that were beyond the options presented in the draft addenda.

**Atlantic Croaker Draft Addendum III**

**Issue 1: Management Trigger**

No written comments address this issue.

**Issue 2: Recreational Management Trigger Response**

The VSSA supports Option D, a 30 fish bag limit for a trigger at the 30% red threshold and a 20 fish bag limit for a trigger at the 20% red threshold.

Additionally, VSSA recommends recreational bait provisions that would allow live croaker to be held in bait pens without being subject to personal bag limits.

Though not responding specifically to the options for this issue, 1 individual comment from Virginia supports implementation of a 20 fish multispecies aggregate bag limit to include Atlantic croaker, 1 individual comment from NC supports implementation of a 10 fish bag limit, and 1 individual comment from NC supports the most restrictive management.

**Issue 3: Commercial Management Trigger Response**

One (1) individual comment from NC supports the most restrictive management.

**Issue 4: Evaluation of Fishery Response to Management**

No written comments address this issue.

**Spot Draft Addendum III**

**Issue 1: Management Trigger**

No written comments address this issue.

**Issue 2: Recreational Management Trigger Response**

The VSSA supports Option D, a 30 fish bag limit for a trigger at the 30% red threshold and a 20 fish bag limit for a trigger at the 20% red threshold.

Additionally, VSSA recommends recreational bait provisions that would allow live spot to be held in bait pens without being subject to personal bag limits.

Though not responding specifically to the options for this issue, 1 individual comment from Virginia supports implementation of a 20 fish multispecies aggregate bag limit to include spot, 1 individual comment from NC supports implementation of a 10 fish bag limit, and 1 individual comment from NC supports the most restrictive management.

### Issue 3: Commercial Management Trigger Response

One (1) individual comment from NC supports the most restrictive management.

### Issue 4: Evaluation of Fishery Response to Management

No written comments address this issue.

### **General Comments:**

- Nine (9) total comments (4 NC, 3 unknown state, CCA, and VSSA) express some form of concern with mortality associated with discards in the South Atlantic shrimp trawl fishery, with many of these specifying inshore trawling in NC waters. Management responses stated in these comments include limits on annual bycatch mortality, additional bycatch reduction measures, and banning inshore trawling.
- Four (4) individual comments (1 from VA, 1 from NC, and 2 unknown state) support removal or delay of the addenda permanently or until regulations are able to have a stronger scientific basis.
- Two (2) individual comments (unknown state) state that recreational measures are too restrictive.
- Two (2) individual comments (NC) state that Atlantic croaker and spot fishing have declined.
- Two (2) individual comments (1 NC, 1 unknown state) support stocking of larval Atlantic croaker and spot.
- Comments stated by one entity are grouped and listed below, with state or organization listed, if available:
  - Management Structure/Measures:
    - Implement recreational and commercial seasons with closures during spawning periods (VA)
    - Increase enforcement of regulations and prosecution of violations (VA)
    - Refrain from laws that do not allow harvest (NC)
    - (Specific to Atlantic croaker) Include the South Atlantic Fishery Management Council in the management of Atlantic croaker
    - Reduce commercial and recreational catch and shrimp trawl bycatch by 25% (CCA)
    - Cut all quotas by 50%
    - No fishing restrictions
  - Traffic Light Approach (TLA) Analysis/Data:
    - TLA should replace the Northeast Fisheries Science Center Trawl Survey (NEFSC) with the Northeast Area Monitoring and Assessment Program (NEAMAP) survey due to changes in NEFSC spatial coverage (NC)
    - Mandate smartphone recreational reporting (NC)

- Do not use harvest as a management indicator (NC)
- Other:
  - Note predation by cormorants, small coastal sharks, and dogfish as significant sources of mortality for Atlantic croaker and spot (NCWU)

In addition to written comments, five public hearings were held, two in Maryland (one co-hosted with Delaware), one in Virginia, one in North Carolina, and one via webinar. Numeric counts of votes on issues with multiple options are shown in the Summary Table below. Comments beyond these votes are also summarized in this report, and recordings of hearing comments are available upon request.

**Summary Tables**

Comments in Favor of Options for Croaker Draft Addendum III												
Issue	Issue 1 (Trigger Timing)		Issue 2 (Rec Trigger Response)				Issue 3 (Com Trigger Response)				Issue 4 (Fishery Eval)	
	A	B	A	B	C	D	A	B-B1	B-B2	B-B3	A	B
Individual								1				
Organization						1						
<b>Hearings</b>												
DE-MD		2				2						2
MD	1	6	6	1		1		8				5
VA		2	4			2					5	
NC		3		2				4				4
Webinar												
<b>TOTAL</b>	<b>1</b>	<b>13</b>	<b>10</b>	<b>3</b>		<b>6</b>		<b>13</b>			<b>5</b>	<b>11</b>

Comments in Favor of Options for Spot Draft Addendum III												
Issue	Issue 1 (Trigger Timing)		Issue 2 (Rec Trigger Response)				Issue 3 (Com Trigger Response)				Issue 4 (Fishery Eval)	
	A	B	A	B	C	D	A	B-B1	B-B2	B-B3	A	B
Individual												
Organization						1						
<b>Hearings</b>												
DE-MD		2				2						2
MD	2	5		8			1	5	1			4
VA		4	2			2	2				2	
NC		2		2				4				4
Webinar												
<b>TOTAL</b>	<b>2</b>	<b>13</b>	<b>2</b>	<b>10</b>		<b>5</b>	<b>3</b>	<b>9</b>	<b>1</b>		<b>2</b>	<b>10</b>

**Atlantic Croaker Draft Addendum III and Spot Draft Addendum III Public Hearing Summary**  
**Annapolis, MD**  
**December 3, 2019**  
**12 Public Attendees**

Staff: Dr. Michael Schmidtke (ASMFC), Lynn Fegley (MDDNR), Harry Rickabaugh (MDDNR)

**Atlantic Croaker**

**Issue 1**

**Rachel Dean** supports Option A.

**Burl Lewis** commented that harvest is not an appropriate way to characterize the fishery. Lewis also noted that management actions through the Traffic Light Approach (TLA) are not based on a peer-reviewed stock assessment. Lewis commented that there should be a provision for weather anomalies in the TLA.

**Shawn Gibson** supports Option B.

One attendee stated opposition to either option presented.

**Issue 2**

**Burl Lewis** commented that Option A provides added flexibility for a wider variety of state-specific measures and reductions that may not be as restrictive as the options listed in the addendum.

**Rachel Dean** commented that she supports Option A and would ask the TC to provide a reduction.

**Issue 3**

**Burl Lewis** commented that under Option B, Maryland would not be required to enact additional measures because they already have commercial restrictions for croaker.

**Issue 4**

**Spot**

**Issue 1**

**Issue 2**

**Shawn Gibson** commented that the proposed bag limit options don't often apply due to a lack of adult fish. However, they would allow continued harvest of juvenile fish that could negatively impact the stock by harvesting before they spawn. Gibson also commented that there is a lot of pressure on spot for use as bait for striped bass.

One recreational charter captain commented that a significant portion of his clientele traveled from other areas to fish for spot and would not be likely to continue doing so if a 50-fish bag limit were implemented. This commenter also stated that this year, his clients caught many juvenile fish, but few adults. Additionally, this commenter stated that the fight that spot give when caught is part of the experience in fishing for them rather than targeting other species. This commenter stated that a minimum of 50 fish allowed per person would be necessary to minimize business loss. This commenter also stated that the use of pots and bait pens to hold spot for use as live bait can be wasteful, as these are typically juvenile fish that are unable to contribute reproductively to the population.

**James Wommack** commented that a 50 fish bag limit severely impacts the recreational sector due to other mortality contributors like dolphins and commercial netters, such that spot can only be targeted recreationally during a limited timeframe and requiring those with business to maximize profits during that timeframe.

**Burl Lewis** commented that spot caught by commercial pots are being used. They're being sold to recreational captains and anglers.

### Issue 3

### Issue 4

#### Additional Comments:

**James Wommack** expressed concern with the lack of action to reduce bycatch mortality associated with the North Carolina shrimp trawl fishery (several other attendees agreed with this concern). Womack also expressed concern with the lack of restrictions for Atlantic croaker harvest outside of Maryland, noting that despite more conservative measures taken, that local fishery has not increased. Womack commented that he is not against measure similar to other states, but feels that Maryland should not be leading the charge for management of a fishery that is more southerly concentrated. Womack also commented that actions through the TLA do not address the primary source of mortality for the spot and croaker fisheries, the shrimp trawl bycatch. Womack also commented that the effect of North Carolina's shrimp trawl fishery extends into other state waters, making it an issue that should be taken up federally or through the Commission. Womack commented that implementation of additional restrictions through the TLA would likely result in those limits becoming permanent because of the inability for those limits to increase stock size, similar to weakfish. Womack commented that management restrictions without a complete, accurate set of data would not be well-founded. Womack also expressed concern supporting any options without knowledge of what actions would be taken in other states, particularly Virginia.

**Rachel Dean** commented that despite the desire for other states to get involved in the management of these species, with the TLA being unable to predict the benefit to the stock from management actions, the actions may not actually be useful. Dean expressed concern that

the actions being taken are impacting only a small fraction of the fishing-associated mortalities for the species (other attendees agreed and expressed similar concern).

**Phil Langley** commented that the debates over use of spot by different sectors and components of the fishery is tied to the lack of abundance for spot and the dependence of people's livelihoods on that species. With the large mortality attributable to the southern shrimp trawl fishery, action needs to be taken to address this fishery.





**Atlantic Croaker Draft Addendum III and Spot Draft Addendum III Public Hearing Summary  
Wilmington, NC  
December 5, 2019  
5 Public Attendees**

Staff: Dr. Michael Schmidtke (ASMFC), Chris Batsavage (NCDMF), Dan Zapf (NCDMF), Lara Klibansky (NCDMF), Dana Gilliken (NCDMG), Capt. Garland Yopp (NC Marine Patrol)

**Atlantic Croaker**

**Issue 1**

**Greg Ludlum** commented that Option B is a fairer assessment for evaluating the fishery because of environmental factors that could impact the abundance or harvest in individual years.

**Issue 2**

**Greg Ludlum** commented that implementation of a 20 fish bag limit would have drastic economic impacts on North Carolina's recreational fishery. Ludlum commented that recreational fishing is not the root cause for the decline of croaker or spot, but that fishery, through triggered measures of this addendum, would be reduced. Ludlum commented that the root cause should be addressed. Ludlum commented that a bag limit should not be reduced below 50 fish per person per day. Ludlum proposed consideration of an additional bag limit option of 75 fish per person at the 30% threshold and 50 fish per person at the 60% threshold, particularly for spot. Ludlum also commented that language in the addendum should be clarified that bag limits are per person per day, rather than possession limits.

**Dewey Hemilright** commented that economic impacts of additional restrictions could be devastating to fishing businesses.

**Greg Ludlum and Howard Crumpler** supported Option B of the proposed options, but would prefer an additional option of 75 fish per person per day at the 30% threshold and 50 fish per person at the 60% threshold or a constant 75 fish per person per day bag limit.

**Issue 3**

**Dewey Hemilright** commented that management actions are not likely to significantly impact Atlantic croaker populations, due to their population cycles observed throughout their history. Hemilright commented that the number of restrictions currently impacting North Carolina commercial fishermen would make it difficult for businesses to continue with additional restrictions to Atlantic croaker. Hemilright expressed concern about the continuation of commercial trigger measures in perpetuity due to a lack of increase in fishery-independent survey indices.

**Issue 4**

**Dewey Hemilright** commented that if abundance continues to decline while triggered measures are in place that additional cuts would be considered, but at some point, it may be useful to consider that something other than harvest is reducing abundance.

**Jake Griffen** expressed concern that if triggered measures are lifted that North Carolina would potentially retain these measures since the Commission allows states to be more restrictive than plan requirements.

### **Spot**

#### **Issue 1**

#### **Issue 2**

**Greg Ludlum** commented that implementation of a 20 fish bag limit would have drastic economic impacts on North Carolina's recreational fishery. Ludlum commented that recreational fishing is not the root cause for the decline of croaker or spot, but that fishery, through triggered measures of this addendum, would be reduced. Ludlum commented that the root cause should be addressed. Ludlum commented that a bag limit should not be reduced below 50 fish per person per day. Ludlum proposed consideration of an additional bag limit option of 75 fish per person at the 30% threshold and 50 fish per person at the 60% threshold, particularly for spot. Ludlum also commented that language in the addendum should be clarified that bag limits are per person per day, rather than possession limits.

**Greg Ludlum and Howard Crumpler** supported Option B of the proposed options, but would prefer an additional option of 75 fish per person per day at the 30% threshold and 50 fish per person at the 60% threshold or a constant 75 fish per person per day bag limit.

#### **Issue 3**

#### **Issue 4**

**Howard Crumpler** expressed concern about the potential for triggered measures to remain in place in perpetuity.

#### **Additional Comments:**

**Dewey Hemilright** commented that catch per unit effort should be used as the metric for calculating the harvest metric rather than strictly harvest or that effort should be presented and considered when evaluating the TLA analysis results.

**Greg Ludlum** commented that recreational management should consider moving away from a trigger by the TLA to a constant bag limit requirement at a sustainable level for business and the population. He recommended this level to be 75 fish per person per day for spot. He recommended this approach due to the complicated nature of management measures through the TLA, noting that simpler, more consistent measures would allow better business planning and compliance with fishing limits. Ludlum also commented that there is a mistrust between the recreational fishery and managers due to restrictions that have been put in place to rebuild

stocks but are not relaxed after stocks are rebuilt. Ludlum also commented that water quality is an important factor impacting fish abundance.



ASMFC Maryland and Delaware Public Hearing Summary on Atlantic Croaker and Spot  
 Draft Addenda  
 Wor-Wic Community College  
 Salisbury, Maryland 6-8pm  
 12/16/19

Three people attended: two recreational (one from Delaware Surf Fishing) and 1 commercial. See Sign in Sheet.

Staff in attendance: Angel Willey, Harry Rickabaugh, Lynn Fegley (MD DNR), John Clark, Stew Michels (DNREC)

Note that all of the votes shown in the tables below were from DE stakeholders. The Maryland stakeholder provided the comment concerning gill net mesh size, and also that 50 fish per person for bait was too many, and a lot of juveniles are being wasted. These comments were made during discussion of spot issue 2, and the DE folks agreed.

MD/DE ASMFC Croaker Hearing Public Comment Summary			
	Option	Number of People	Reason
Issue 1	B	2	Most Conservative
Issue 2	D	2	Most Conservative
Issue 3	Zero comments for this issue		
Issue 4	B	2	Because it is a plan

MD/DE ASMFC Spot Hearing Public Comment Summary			
	Option	Number of People	Reason
Issue 1	B	2	Most Conservative
Issue 2	D	2	Don't want DE to be the loophole state
Issue 3	No option was selected but we did hear that management could use a gill net mesh size restriction of $2\frac{7}{8}$ instead of $2\frac{5}{8}$ .		
Issue 4	B	2	Because it is a plan



**Atlantic Croaker Draft Addendum III and Spot Draft Addendum III Public Hearing Summary  
Hampton, VA  
January 7, 2020  
13 Public Attendees**

Staff: Dr. Michael Schmidtke (ASMFC), Pat Geer (VMRC), Shanna Madsen (VMRC), Somers Smott (VMRC)

**Atlantic Croaker**

Issue 1

Issue 2

Issue 3

Issue 4

**Jimmy Ruhle** commented that he recommends that the Board consider shortening the timeframe required for increased abundance to be observed and maintained before triggered measures are removed.

**Spot**

Issue 1

Issue 2

Issue 3

Issue 4

Additional Comments:

**Jimmy Ruhle** commented that the TLA operates on too slow of a basis for use in this fishery and that when the Atlantic croaker population increases, it will do so rapidly. Ruhle commented that the Northeast Area Monitoring and Assessment Program (NEAMAP) survey should replace the Northeast Fisheries Science Center (NEFSC) survey in the Mid-Atlantic regional TLAs because since the NEFSC survey changed vessels to the Bigelow, it no longer samples inshore waters where spot and croaker would be most abundant. Those areas are now sampled by NEAMAP. Ruhle also commented that the timing of the fall NEFSC survey is such that it does not always sample when croaker have moved into the area. Ruhle commented that there have been more northerly abundances of spot and croaker in the most recent years of the NEAMAP survey. Ruhle commented that harvest is not an appropriate metric for evaluating the status of the fishery, because if fish are too small or inaccessible, effort will be redirected elsewhere even if there is abundance in the population. Additionally, if fishing is good for another species, effort will be redirected toward that species, regardless of potential accessible abundance of others. Ruhle commented specifically that there is an abundance of small croaker offshore, but

they are not being targeted because of their size. Additionally, shrimp harvest has increased recently in Virginia, leading to more recent effort toward that fishery. Ruhle commented that the Board should delay and reconstruct the draft addenda. Ruhle commented that, for spot in the Mid-Atlantic, the abundance has been increasing from 2015 through 2018, although harvest had percents red over the 30% threshold in 3 of those 4 years; this may be indicative of fish size and an inability to market fish in those years, despite improved abundance. Ruhle commented that the measures proposed would not adhere to National Standard 1 by not maximizing optimal sustainable yield, and that the measures are unnecessary. Ruhle commented that North Carolina has reduced shrimp trawl bycatch through the use of bycatch-reducing devices, and that improvement should be acknowledged in discussions surrounding this fishery.

**Robert Hollowell** commented that around 2008-09, there was a large natural kill of 2-5 pound croaker between Delaware Bay and Oregon inlet due to overabundance. Hollowell commented that stopping crab dredging in Chesapeake Bay resulted in reduced rocky habitat and more muddy bottom, reducing fish populations.

**James Glasco** commented that customers are willing to purchase recreational charters for 7-inch fish, but they won't harvest 5-inch fish. Glasco commented that there is no shortage of small spot. Glasco commented that large spot are sporadically available in some areas, but are gone from areas quickly. Glasco commented that triggered measures would punish anglers that have good days of fishing. Glasco commented that potential additional restrictions would not be based on reliable science. Glasco commented that enforceability of potential bag limits would be difficult. Glasco commented that captain and crew's bag limits should be allowed to be included in a trip or vessel limit. Glasco commented that the potential reductions would be overly burdensome and are not based upon sound enough science to make such drastic changes to the fishery. Glasco commented that enforcement of laws needs to be more consistent; others agreed. Glasco commented that it would be difficult to sell recreational charters with bag limits in place, as large catches help sell more trips. Glasco commented that he does not see the benefit of potential restrictions. Glasco commented that the Deepwater Horizon oil spill may have impacted population shifts from the Gulf of Mexico and up the Atlantic coast.

**Mike Avery** commented that the high number of dead discards associated with the shrimp trawl fishery is concerning and wasteful for the resource. Avery commented that regardless of actions taken through these addenda, shrimp trawl discards would still be the primary mortality factor affecting the resource. Avery commented that action should be taken to reduce dead discards from the shrimp trawl fishery. Avery also commented that language should address enforcement to protect the use of holding croaker and spot in bait pens.

**Charles Dryden** commented that harvest is down due to reduced effort. Effort has been redirected to other stocks that are more available or more lucrative. Dryden commented that fewer people are interested in fishing commercially for spot.



**Steve Lewis** commented that a 2010 scientific article about the environmental drivers of the Atlantic croaker population indicates that over the next 90 years, the population will significantly increase, but will shift northward. Lewis commented that the reduced effort for Atlantic croaker and spot has essentially acted as a self-regulation. Lewis commented that populations across the coast are moving east and north, which means that what seems like local population decline may actually just be population shift with similar abundance.

ATLANTIC STATES MARINE FISHERIES COMMISSION

SPOT/CROAKER PUBLIC HEARING ON ADDENDA

380 FENWICK RD, BUILDING 96, FORT MONROE, VA

VMRC COMMISSION ROOM

20

Tuesday, January 7, 2020 - 6:30 PM

**Public Attendance Sheet**

**PLEASE PRINT CLEARLY**

Charles Druden

John Druden

George Trice

Robert Hall

Robert Steve Lewis

JAMES M. GLASCO

Robert Hall

JOHN SATTERLY

PAVELA HENSLEY

Mike Avery

Jimmy Public

EDUARDO SARRAN

David Arce

## **Atlantic Croaker Draft Addendum III and Spot Draft Addendum III Public Hearing Summary Webinar**

**January 8, 2020**

### **11 Public Attendees**

Public: Al Adam, Stuart Creighton, Michelle Duval, James Fletcher, William Gorham, Hannah Hart, Bob Lovenshimer, Greg Ludlum, Bryce Ostrander, Glenn Skinner, Mike Waine

Board: Roy Miller (DE), Chris Batsavage (NC DMF)

Staff: Dr. Michael Schmidtke (ASMFC)

### **Atlantic Croaker**

#### **Issue 1**

**James Fletcher** commented that 3 or 4 years is not a long enough time period to evaluate the population.

#### **Issue 2**

**James Fletcher** commented that the use of a bag limit would encourage high-grading, leading to greater numbers of dead discarded small croaker.

#### **Issue 3**

**James Fletcher** commented that croaker populations follow a lunar cycle, and that the 10-year average should be changed to a 15-year average to line up with this cycle. Fletcher commented that use of a 10-year average harvest is not appropriate due to flynet restrictions in Virginia that limited landing areas and harvest.

#### **Issue 4**

### **Spot**

#### **Issue 1**

#### **Issue 2**

**James Fletcher** commented that the use of a bag limit would encourage high-grading, leading to greater numbers of dead discarded small spot.

#### **Issue 3**

#### **Issue 4**

### **Additional Comments:**

**Roy Miller** commented that there may be data deficiencies for sampling inshore waters along Delaware and New Jersey due to the Northeast Fisheries Science Center (NEFSC) trawl survey sampling more offshore. State surveys from Delaware or New Jersey could be used to provide

information on these areas. Staff will follow up with the Technical Committee for comments related to the sampling areas.

**James Fletcher** commented that comparisons should not be made among the Bigelow (the current NEFSC survey vessel), the formerly used Albatross, or the Northeast Area Monitoring and Assessment Program (NEAMAP) because of differences in spatial coverage. Fletcher commented that the Commission should consider stocking Atlantic croaker, spot, and other species to enhance these stocks rather than restricting the fisheries.

# Atlantic States Marine Fisheries Commission

## South Atlantic Species Advisory Panel Webinar

Wednesday, January 22<sup>nd</sup>, 2020

4:00pm – 6:00pm

### Meeting Summary

#### 1) **Welcome/Introductions** (*C. Freeman*)

**Advisory Panel (AP):** Craig Freeman (Chair, VA), Tom Powers (VA), Bernie McCants (NC), Aaron Kelly (NC)

**Board:** Chris Batsavage (NC)

**ASMFC Staff:** Michael Schmidtke

#### 2) **Update from Previous Board Meeting** (*M. Schmidtke*)

- Schmidtke updated the AP on the Board's release of Draft Addenda for Atlantic Croaker and Spot and the completion of the Southeast Data, Assessment, and Review (SEDAR) 58 Benchmark Stock Assessment for Atlantic cobia

#### 3) **Presentation Draft Addenda III for Atlantic Croaker** (*M. Schmidtke*)

- Schmidtke presented Draft Addendum III for Atlantic Croaker, describing the updates to the Traffic Light Approach (TLA), the issues being addressed by the addendum, and options for each issue.

#### 4) **Draft Addenda III for Atlantic Croaker Discussion and Recommended Options** (*C. Freeman*)

Issue 1: The AP recommends approval of Option B, management action trigger by exceeding the red threshold in 3 of the 4 terminal years.

Issue 2: The AP recommends approval of Option C (40 fish/30 fish bag limit) or Option D (30 fish/20 fish bag limit), as the recreational fishery's response to a 30% or 60% red management trigger, respectively.

- For live bait possession, the AP suggests no limit on the number of Atlantic croaker possessed up to 6 inches long and maintained in a live well. Any Atlantic croaker that are possessed dead or greater than 6 inches would count towards personal bag limits.

- Powers supports allowing captain and mate’s bag limits to apply to total harvest, particularly with regard to the current live bait language that only includes customer bag limits
- Powers supports the same live bait provisions for the private and for-hire recreational components
- Powers suggested the use of language similar to “possession while fishing” to clarify that bait pens are not included in live bait restrictions. These restrictions would still include harvesting of live bait and possession of live bait while fishing for other species.
- Powers commented that mortality due to recreational bait use is likely underreported, if at all, and should be considered in future data collection efforts and stock assessments.
- Powers suggested use of a slot no-take limit, disallowing harvest of fish between 6 and 9 inches. This could allow for a more substantial reduction than those estimated by currently proposed bag limits and promote stock growth by allowing more juvenile fish to reach adult size.
- Powers expressed concern that none of the proposed options offer a substantial conservation benefit due to minimal harvest reductions.
- McCants expressed concern over potential impacts of a size limit on the recreational fishery, though also noting the minimal impacts of the proposed bag limits.
- The AP prefers the most conservative options, noting that implementation of the previously mentioned maximum size limit (6 inches) for live fish with no possession limit for such fish may make Option D more easily accepted by those who use live croaker as bait.

Issue 3: The AP recommends approval of Option B with alterations to the reduction percentages and timeframes considered for deriving measures. In response to a 30% Red Trigger, the AP recommends quantifiable measures to achieve a **5%** commercial harvest reduction from the previous **3**-year average. In response to a 60% Red Trigger, the AP recommends quantifiable measures to achieve a **10%** commercial harvest reduction from the previous **3**-year average.

- Powers commented that due to the decline in harvest over the last 10 years, the reductions proposed relative to the 10-year average would result in no reduction relative to the most recent harvests.
- McCants noted the cyclic nature of Atlantic croaker population trends, which would likely result in some years of higher abundance and harvest being included in a 10-

year average timeframe, reducing conservation efforts when the abundance and harvest are at low points.

- Powers and McCants also commented that use of a 3-year average would match the timing of the trigger that prompted measures to be implemented.
- Powers requested that staff estimate the potential commercial reduction using 10-year and 3-year averaging methods and show a comparisons to recent harvests.

Issue 4: The AP recommends approval of Option B, with edits to the requirements for management triggers to be removed. The TLA should still consider harvest in the TLA while management triggers are in place, and the removal of measures should be based increased levels (i.e. lowered percentages of red) of both harvest and abundance. Measures should only be removed after a 4-year time period in which red percentages for both harvest and abundance in both regions are less than 30% in all 4 years and 2 of those 4 years have red percentages of less than 15% for each regional metric.

5) **Presentation Draft Addenda III for Spot** (*M. Schmidtke*)

- Schmidtke presented Draft Addendum III for Spot, describing the updates to the Traffic Light Approach (TLA), the issues being addressed by the addendum, and options for each issue.

6) **Draft Addenda III for Spot Discussion and Recommended Options** (*C. Freeman*)

Issue 1: The AP recommends approval of Option B, management action trigger by exceeding the red threshold in 3 of the 4 terminal years.

Issue 2: The AP recommends approval of Option B (50 fish/40 fish bag limit) as the recreational fishery's response to a 30% or 60% red management trigger, respectively.

- For live bait possession, the AP suggests no limit on the number of spot possessed up to 5 inches long and maintained in a live well. Any Atlantic croaker that are possessed dead or greater than 5 inches would count towards personal bag limits.
- The AP noted that the bag limits proposed in the addendum for spot offer a more substantial reduction than was estimated for croaker.

Issue 3: The AP recommends approval of Option B with alterations to the reduction percentages and timeframes considered for deriving measures. In response to a 30% Red Trigger, the AP recommends quantifiable measures to achieve a **5%** commercial harvest reduction from the previous **2**-year average. In response to a 60% Red Trigger, the AP recommends quantifiable measures to achieve a **10%** commercial harvest reduction from the previous **2**-year average.

- Discussion for the recommendation and changes to proposed measures was similar to that provided for Atlantic croaker.

Issue 4: The AP recommends approval of Option B, with edits to the requirements for management triggers to be removed. The TLA should still consider harvest in the TLA while management triggers are in place, and the removal of measures should be based increased levels (i.e. lowered percentages of red) of both harvest and abundance. Measures should only be removed after a 3-year time period in which red percentages for both harvest and abundance in both regions are less than 30% in all 3 years and 2 of those 3 years have red percentages of less than 15% for each regional metric.

#### 7) **Atlantic Cobia Assessment Summary and Preliminary Harvest Quota Projections** (*M. Schmidtke*)

- Schmidtke presented a brief summary of SEDAR 58 Atlantic Cobia Assessment results and projections available to date
- The AP recommends Board use of quotas that do not lead to continued decline of biomass. From projections available in the SEDAR 58 report, this would put a maximum harvest level between that projected under 75%  $F_{40\%}$  and  $F_{current}$ .

#### 8) **Other Business/Adjourn**

#### **Appendix**

Glenn Skinner was unable to attend, but emailed comments recommending the least restrictive options. Skinner's comment stated that North Carolina stakeholders feel that predation and other environmental factors are responsible for the declines in harvest. Skinner also noted the goal of the addendum as to provide a cushion to allow populations to recover when natural conditions allow rather than drastically reducing effort as if rebuilding an overfished stock.



# Atlantic States Marine Fisheries Commission

## Atlantic Croaker Technical Committee and Spot Plan Review Team Webinar

Monday, January 27<sup>th</sup>, 2020

1:00pm – 3:00pm

### Meeting Summary

**Atlantic Croaker Technical Committee (TC):** Dawn Franco (GA, Chair), Harry Rickabaugh (MD), Somers Smott (VA), Dan Zapf (NC), Chris McDonough (SC)

**Spot Plan Review Team (PRT):** Harry Rickabaugh (MD), Ethan Simpson (VA), Dan Zapf (NC), Chris McDonough (SC)

**ASMFC Staff:** Michael Schmidtke, Kristen Anstead, Jeff Kipp

The TC and PRT met via webinar to review Draft Addendum III to Amendment 1 to the Atlantic Croaker Fishery Management Plan (FMP) (Croaker Draft Addendum III) and Draft Addendum III to the Omnibus Amendment to the Interstate FMPs for Spanish Mackerel, Spot, and Spotted Seatrout (Spot Draft Addendum III). The TC and PRT provided the following comments on each of the issues for the South Atlantic State/Federal Fisheries Management Board's (Board) consideration.

### Atlantic Croaker Draft Addendum III

#### Issue 1: Management Trigger

- The TC maintains its recommendation for Option B.

#### Issue 2: Recreational Management Trigger Response

- Language should specify that allowed use of more restrictive state-level measures includes those for bait, as GA does not allow bait use of regulated species (includes croaker).
- Consider adjusting language to allow pots or pens that are near a pier but not a vessel. Possibly apply bag or bait restrictions only "while fishing".
- The TC recommends the Board approve one of Options B-D. Option A's requirement to develop harvest reductions and measures relative to the magnitude of percent red above the trigger threshold would be difficult to accomplish with any expectation that it would result in a similar increase in abundance.
- In choosing options for Issues 2 and 3, the TC recommends the Board consider equity of estimated reductions between the recreational and commercial fisheries.

### Issue 3: Commercial Management Trigger Response

- The TC recommends the Board approve one of Option B. Option A's requirement to develop harvest reductions and measures relative to the magnitude of percent red above the trigger threshold would be difficult to accomplish with any expectation that it would result in a similar increase in abundance.
- In choosing options for Issues 2 and 3, the TC recommends the Board consider equity of estimated reductions between the recreational and commercial fisheries.

### Issue 4: Evaluation of Fishery Response to Management

- The TC recommends Option B.

### **Spot Draft Addendum III**

#### Issue 1: Management Trigger

- The PRT maintains its recommendation for Option B.

#### Issue 2: Recreational Management Trigger Response

- Language should specify that allowed use of more restrictive state-level measures includes those for bait, as GA does not allow bait use of regulated species (includes spot).
- Consider adjusting language to allow pots or pens that are near a pier but not a vessel. Possibly apply bag or bait restrictions only "while fishing".
- The PRT recommends the Board approve one of Options B-D. Option A's requirement to develop harvest reductions and measures relative to the magnitude of percent red above the trigger threshold would be difficult to accomplish with any expectation that it would result in a similar increase in abundance.
- In choosing options for Issues 2 and 3, the PRT recommends the Board consider equity of estimated reductions between the recreational and commercial fisheries.

#### Issue 3: Commercial Management Trigger Response

- The PRT recommends the Board approve one of Option B. Option A's requirement to develop harvest reductions and measures relative to the magnitude of percent red above the trigger threshold would be difficult to accomplish with any expectation that it would result in a similar increase in abundance.
- In choosing options for Issues 2 and 3, the PRT recommends the Board consider equity of estimated reductions between the recreational and commercial fisheries.

#### Issue 4: Evaluation of Fishery Response to Management

- The PRT recommends Option B.



# Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201  
703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

---

## MEMORANDUM

January 27, 2020

**To: South Atlantic State/Federal Fisheries Management Board**  
**From: Red Drum Stock Assessment Subcommittee**  
**RE: Red Drum Stock Assessment Road Map**

The Assessment Science Committee (ASC) was tasked with providing a road map for future red drum stock assessments to the South Atlantic State/Federal Fisheries Management Board. The ASC formed a subcommittee to develop the road map and the subcommittee recommended the Red Drum Stock Assessment Subcommittee (SAS) be repopulated to assist with the road map.

Together, the ASC and Red Drum SAS recommend evaluating three potential frameworks to develop management advice from the next stock assessment (in no particular order):

1. model-free stock indicators, similar to traffic light analyses used for Atlantic croaker and spot,
2. a population dynamics model tracking the juvenile components of the stocks, and
3. a population dynamics model tracking all life stages of the stocks.

The anticipated advantage of the first framework is being able to provide advice on all life stages with data currently available, with the most notable disadvantage being no quantitative stock status estimates. Rather, this framework would provide stock status as changes in individual data sets or indicators relative to some predefined time period in the available data. The anticipated advantage of the second framework is being able to provide estimates of stock status relative to potential productivity from integrated juvenile data (currently available), with the most notable disadvantage being stock status estimates that are not influenced by changes in the mature, adult components of the stocks (data currently limited or not available). The anticipated advantage of the third framework is being able to provide estimates of stock status relative to potential productivity from integrated data across life stages, but estimates from this framework are likely to have relatively high levels of uncertainty given current data limitations on adult components of the stocks (i.e., lack of age composition data characterizing dead discards).

It is recommended that the Red Drum SAS develop simulation models as a focal point of the next assessment, given the unique characteristics of red drum life history and data availability. Simulation models will simulate red drum stocks that will be subjected to various fishing mortality scenarios and sampled to mimic available data streams. Data streams will then be applied to the three potential frameworks to test their reliability in characterizing stock status

M20-011

and inform the preferred framework for providing management advice. Simulation testing will also be used to identify the data deficiencies causing uncertainty in assessment advice to focus improvements in data collection efforts into the future. The Red Drum SAS anticipates an assessment timeline of four years to fully address the simulation work proposed. The recommended timeline is for a two-stage assessment process that includes two years of work devoted to simulation analysis with a peer review in 2022 and a subsequent two years of work devoted to a traditional benchmark stock assessment with a peer review in 2024. If the recommended timeline is approved, the simulation analysis will be scheduled for an ASMFC external peer review in 2022. The Southeast Data, Assessment, and Review (SEDAR) peer review schedule currently has a placeholder for a red drum benchmark assessment, and a request could be made to reschedule this assessment for review in 2024.

The Red Drum SAS recommends the Board provide direction to begin developing terms of reference for the simulation analysis at the ASMFC 2020 Winter Meeting to stay on track with the proposed timeline. Additionally, the SAS recommends the South Atlantic Board recommend to the Interstate Fisheries Management Plan Policy Board, approval of resources to conduct the necessary work and peer review workshops.