UPDATED RECOMMENDATIONS FOR THE OVERFISHING LIMIT AND ACCEPTABLE BIOLOGICAL CATCH FOR GREATER AMBERJACK

Recommended levels for the overfishing limit (OFL) and acceptable biological catch (ABC) for Greater Amberjack were updated consistent with recommendations previously made by the South Atlantic Fishery Management Council's (Council) Scientific and Statistical Committee (SSC), based on the Southeast Data, Assessment, and Review (SEDAR) 59 stock assessment (2020). The SSC's previously recommended OFL and ABC were from the stochastic projection with fishing mortality rate (F) fixed at F_{MSY}, starting with the first year of management. Additional projections were requested from the Southeast Fisheries Science Center to change the first year of applied management from 2020 to 2022 and extend the projection period through 2026.

The table below replaces Table 1 found in the Snapper Grouper Amendment 49 March 2021 Decision Document and will be used in future amendment drafts and documents. Alternatives based on the OFL or ABC will also be updated in future amendment drafts and documents. Full projection results are included in the following report.

Table 1. South Atlantic Greater Amberjack overfishing limit (OFL) and acceptable biological catch (ABC) recommendations, in pounds whole weight (lb ww), based on projections from SEDAR 59 (2020). The assessment and these projections use recreational data calibrated to the Marine Recreational Information Program Fishing Effort Survey (FES).

OFL RECOMMENDATIONS	
Year	**Landings (lb ww)**
2022	4,615,000
2023	3,283,000
2024	2,839,000
2025	2,719,000
2026	2,691,000
ABC RECOMMENDATIONS	
Year	**Landings (lb ww)**
2022	4,380,000
2023	3,233,000
2024	2,818,000
2025	2,699,000
2026	2,669,000

Projections for South Atlantic Greater Amberjack SEDAR 59 Stock Assessment

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This document responds to a request from the SAFMC (February 8th, 2021 email) for additional projections following the SEDAR 59 South Atlantic Greater Amberjack stock assessment. The request consisted of extending the interim period through 2021, as management is not expected to take place until 2022, and extending the projection period to 2026 for all projection scenarios. Projects are provided for 75%F_{msy}, F_{msy}, and Pstar = 0.45. All other specifications in the projections remained the same as those provided in the original SEDAR assessment report.

Table 1. Projection results with fishing mortality rate fixed at F = 75%F_{MSY} starting in 2022. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = landings, and D = dead discards expressed in numbers (n, in 1000s) and in whole weight (w, in 1000 lb). The extension 'base' indicates expected values (deterministic) from the base run. The extension 'med' indicates median values from the stochastic projections.

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)	D.base (1000)	D.med (1000)	D.base (1000 lb)	D.med (1000 lb)
2018	1139	1081	0.28	0.34	6869	5398	196	185	2733	2683	51	13	198	53
2019	1401	1083	0.31	0.39	6116	5022	190	191	2733	2683	70	16	271	63
2020	1392	1086	0.36	0.43	5654	4742	194	200	2733	2683	79	18	308	70
2021	1385	1081	0.4	0.47	5268	4533	202	207	2733	2683	88	19	342	77
2022	1379	1084	0.52	0.8	4855	4094	238	303	3111	3761	111	30	432	119
2023	1371	1074	0.52	0.8	4445	3579	218	260	2757	3054	110	30	430	118
2024	1361	1081	0.52	0.8	4221	3419	207	243	2552	2730	110	30	427	118
2025	1356	1087	0.52	0.8	4098	3385	201	238	2440	2631	109	30	425	119
2026	1352	1082	0.52	0.8	4031	3387	198	236	2380	2602	109	29	424	118

Table 2. Projection results with fishing mortality rate fixed at F = F_{MSY} starting in 2022. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = landings, and D = dead discards expressed in numbers (n, in 1000s) and in whole weight (w, in 1000 lb). The extension 'base' indicates expected values (deterministic) from the base run. The extension 'med' indicates median values from the stochastic projections.

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)	D.base (1000)	D.med (1000)	D.base (1000 lb)	D.med (1000 lb)
2018	1139	1081	0.28	0.34	6869	5398	196	185	2733	2683	51	13	198	53
2019	1401	1083	0.31	0.39	6116	5022	190	191	2733	2683	70	16	271	63
2020	1392	1086	0.36	0.43	5654	4742	194	200	2733	2683	79	18	308	70
2021	1385	1081	0.4	0.47	5268	4533	202	207	2733	2683	88	19	342	77
2022	1379	1084	0.69	1.07	4688	3880	301	376	3913	4615	145	39	565	157
2023	1367	1074	0.69	1.07	3982	3153	255	293	3137	3283	144	39	560	155
2024	1349	1081	0.69	1.07	3638	2953	232	268	2735	2839	142	39	553	155
2025	1338	1087	0.69	1.07	3470	2905	222	262	2540	2719	141	39	548	157
2026	1331	1082	0.69	1.07	3386	2899	216	260	2445	2691	140	39	545	155

Table 3. Projection results for P*=0.45 starting in 2022. R = number of age-1 recruits (in 1000s), F = fishing mortality rate (per year), S = spawning stock (mt), L = landings and D = dead discards expressed in numbers (n, in 1000s) and in whole weight (w, in 1000 lb). The extension 'base' indicates expected values (deterministic) from the base run. The extension 'med' indicates median values from the stochastic projections.

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)	D.base (1000)	D.med (1000)	D.base (1000 lb)	D.med (1000 lb)
2018	1139	1081	0.28	0.34	6869	5398	196	185	2733	2683	51	13	198	53
2019	1401	1083	0.31	0.39	6116	5022	190	191	2733	2683	70	16	271	63
2020	1392	1086	0.36	0.43	5654	4742	194	200	2733	2683	79	18	308	70
2021	1385	1081	0.4	0.47	5268	4533	202	207	2733	2683	88	19	342	77
2022	1379	1084	0.64	0.99	4736	3941	283	356	3688	4380	135	37	527	146
2023	1368	1074	0.64	0.99	4110	3267	245	285	3043	3233	134	36	523	144
2024	1353	1081	0.64	0.99	3795	3075	226	261	2698	2818	133	36	516	144
2025	1343	1087	0.64	0.99	3636	3028	217	255	2524	2699	132	37	513	146
2026	1338	1082	0.64	0.99	3554	3023	212	254	2437	2669	131	36	511	144

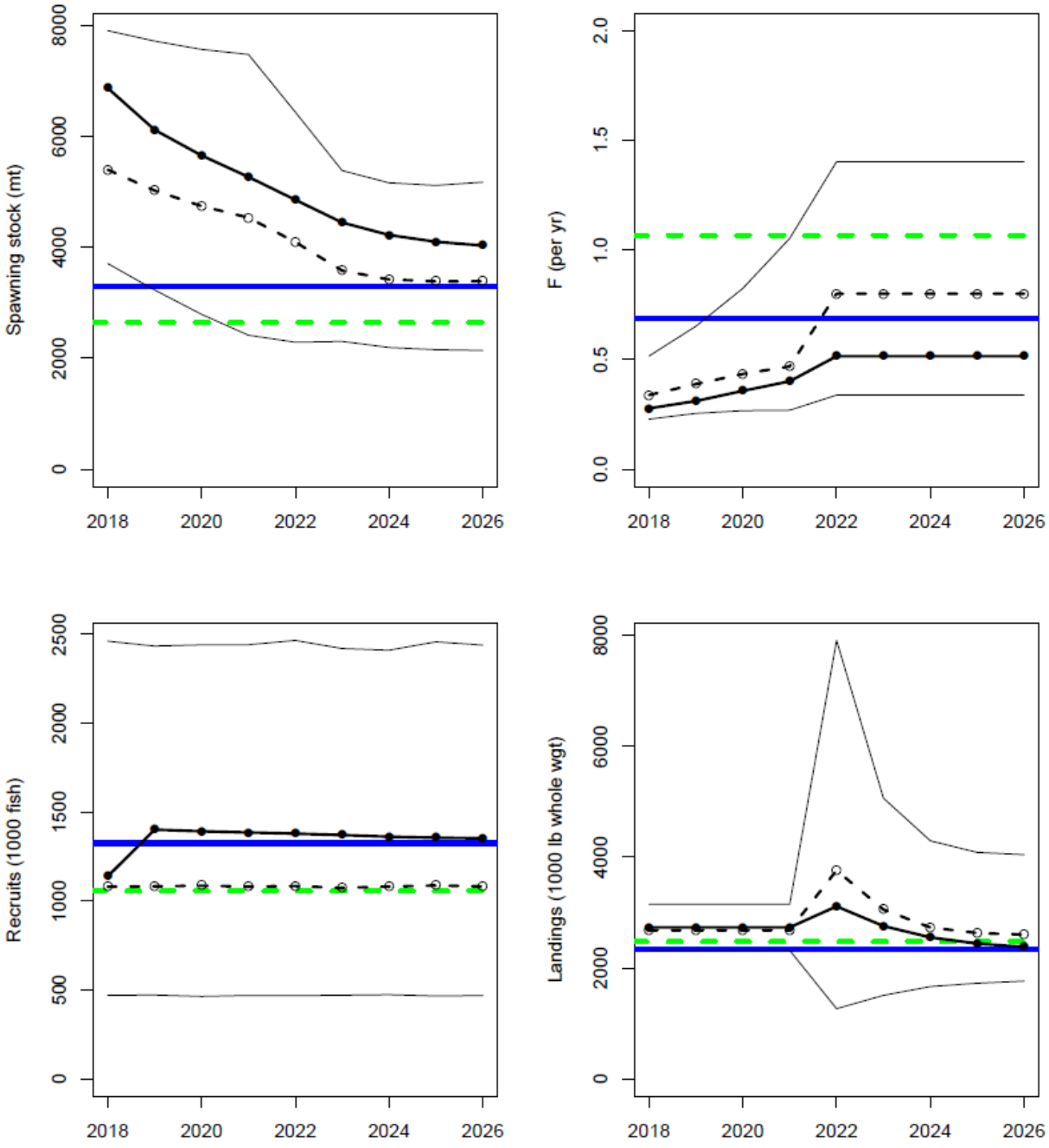

Figure 1. Projection results with fishing mortality rate at F = 75%F_{MSY} starting in 2022. The interim years (2018-2021) use a mean of the 2014-2017 landings. In the top four panels, expected values (base run) represented by solid lines with solid circles, medians represented by dashed lines with open circles, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Solid horizontal lines mark MSY-related quantities from the base run; dashed horizontal lines represent corresponding median values from the replicate projections. Spawning stock (SSB) is at time of peak spawning.

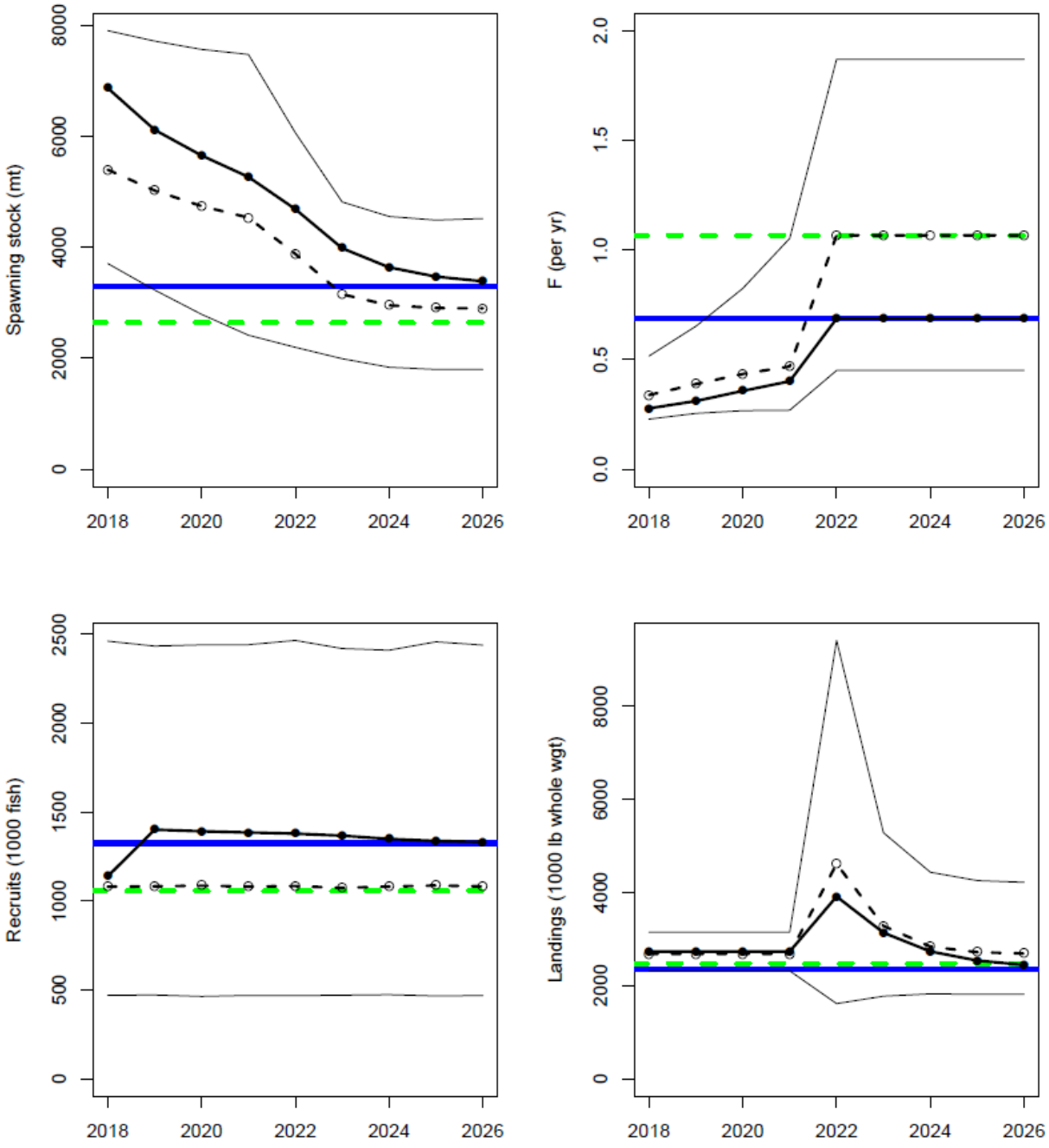

Figure 2. Projection results with fishing mortality rate at F = F_{MSY} starting in 2022. The interim years (2018-2021) use a mean of the 2014-2017 landings. In the top four panels, expected values (base run) represented by solid lines with solid circles, medians represented by dashed lines with open circles, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Solid horizontal lines mark MSY-related quantities from the base run; dashed horizontal lines represent corresponding medians. Spawning stock (SSB) is at time of peak spawning.

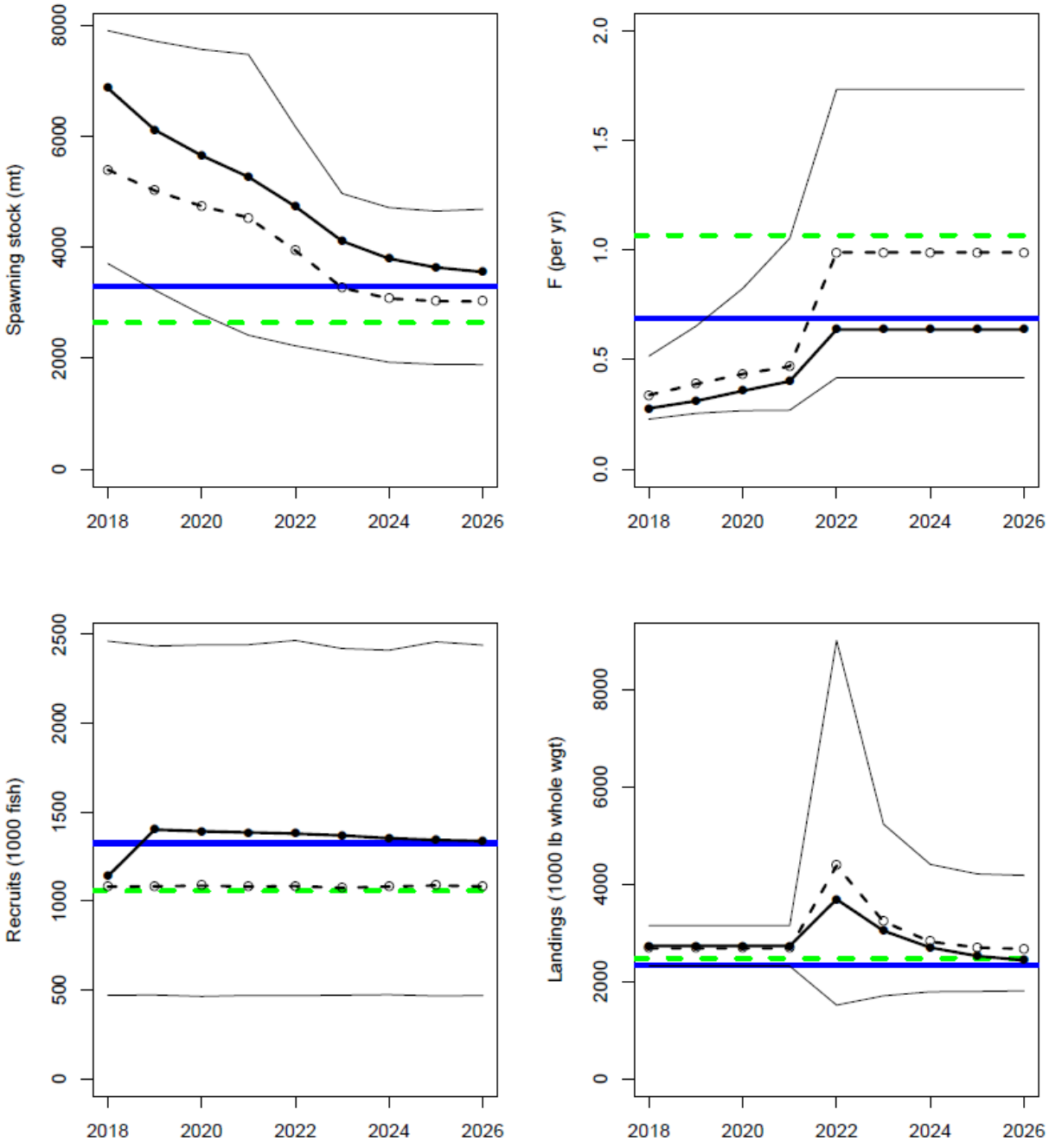

Figure 3. Projection results with P*=0.45 starting in 2022. The interim years (2018-2021) use a mean of the 2014-2017 landings. In the top four panels, expected values (base run) represented by solid lines with solid circles, medians represented by dashed lines with open circles, and uncertainty represented by thin lines corresponding to 5th and 95th percentiles of replicate projections. Solid horizontal lines mark MSY-related quantities from the base run; dashed horizontal lines represent corresponding medians. Spawning stock (SSB) is at time of peak spawning.