

# SEDAR 70 Projections – Gulf Greater Amberjack

## Updated Projections – Assumptions

- $MSST = SSB_{SPR30\%} * 0.5$
- Recruitment fixed at recent average (2009-2018)
- Selectivity, retention, relative F as three-year average (2016-2018)
- Terminal year of assessment was 2018
- Projections begun in 2022
- Gap years specified as:
  - 2019- using preliminary 2019 data
  - 2020 and 2021 using 2016-2018 average landings
    - 2019 landings were atypical compared to previous years
- Sector allocations: 27 commercial, 73% recreational

Variable	Definition	Value
Base M	Fully selected ages of Lorenzen Natural Mortality (M)	0.28
Steepness	Fixed Stock-Recruit (SR) parameter (not used in projections)	0.777
Virgin Recruitment	Estimated SR parameter (not used in projections)	3,698
Generation Time	Fecundity-weighted mean age	7.59
SSB Unfished	Estimated virgin spawning stock biomass	23,733
<b>Mortality Rate Criteria</b>		
FMSYproxy	Equilibrium F that achieves SPR30%	0.175
MFMT	Equilibrium F that achieves SPR30%	0.175
FRebuild	F that rebuilds the stock to SSBSPR30% by 2027	0.117
FOY	0.75 * Directed F at FSPR30%	
Fcurrent	Geometric Mean (F2016-2018)=Fcurrent	0.302
Fcurrent/FMSYproxy	Current stock status based on FMSYproxy	1.729
Fcurrent/MFMT	Current stock status based on MFMT	1.729
<b>Biomass Criteria</b>		
SSBMSYproxy	Equilibrium SSB at FSPR30%	7,119
MSST	0.5*SSBSPR30%	3,560
SSB at Optimum Yield	Equilibrium SSB when Directed F = 0.75 * Directed F at FSPR30%	
SSB_2018	SSB2018	2,433
SSB_2018/SSBFMSYproxy	Current stock status based on SSBSPR30% (Equil)	0.34
SSB_2018/MSST	Current stock status based on MSSTSPR30%	0.68
SSB_2018/SSBunfished	2018 SPR	0.1

1

2 > 1

3

4

5

6 5 < 4

# Projections – Results

Criteria	Definitions	Yield	Year SSB > MSST	Year SSB > SSB <sub>SPR30%</sub>
OFL	Annual yield at MFMT = F <sub>SPR30%</sub>	mp ww	2023	2036
	2022	1.637		
	2023	2.223		
	2024	2.781		
	2025	3.207		
	2026	3.497		
ABC	Annual yield at F <sub>Rebuild</sub>		2023	2027
	2022	1.255		
	2023	1.767		
	2024	2.270		
	2025	2.672		
	2026	2.961		

# SSC Recommendations

- **Motion: The SSC accepts SEDAR 70 and recommends the greater amberjack OFL as based on the yield at  $F_{SPR30\%}$ , and ABC as based on the yield at  $F_{Rebuild}$  (by 2027) for 2022-2024:**

<b>Year</b>	<b>OFL (mp ww)</b>	<b>ABC (mp ww)</b>
2022	1.637	1.255
2023	2.223	1.767
2024	2.781	2.270