



Tab B, No. 6(ai)

Reef Fish Amendment 56:

# **Gag Grouper Catch Limits, Sector Allocations, and Recreational Seasons – Discussion on Proposed Future Actions**

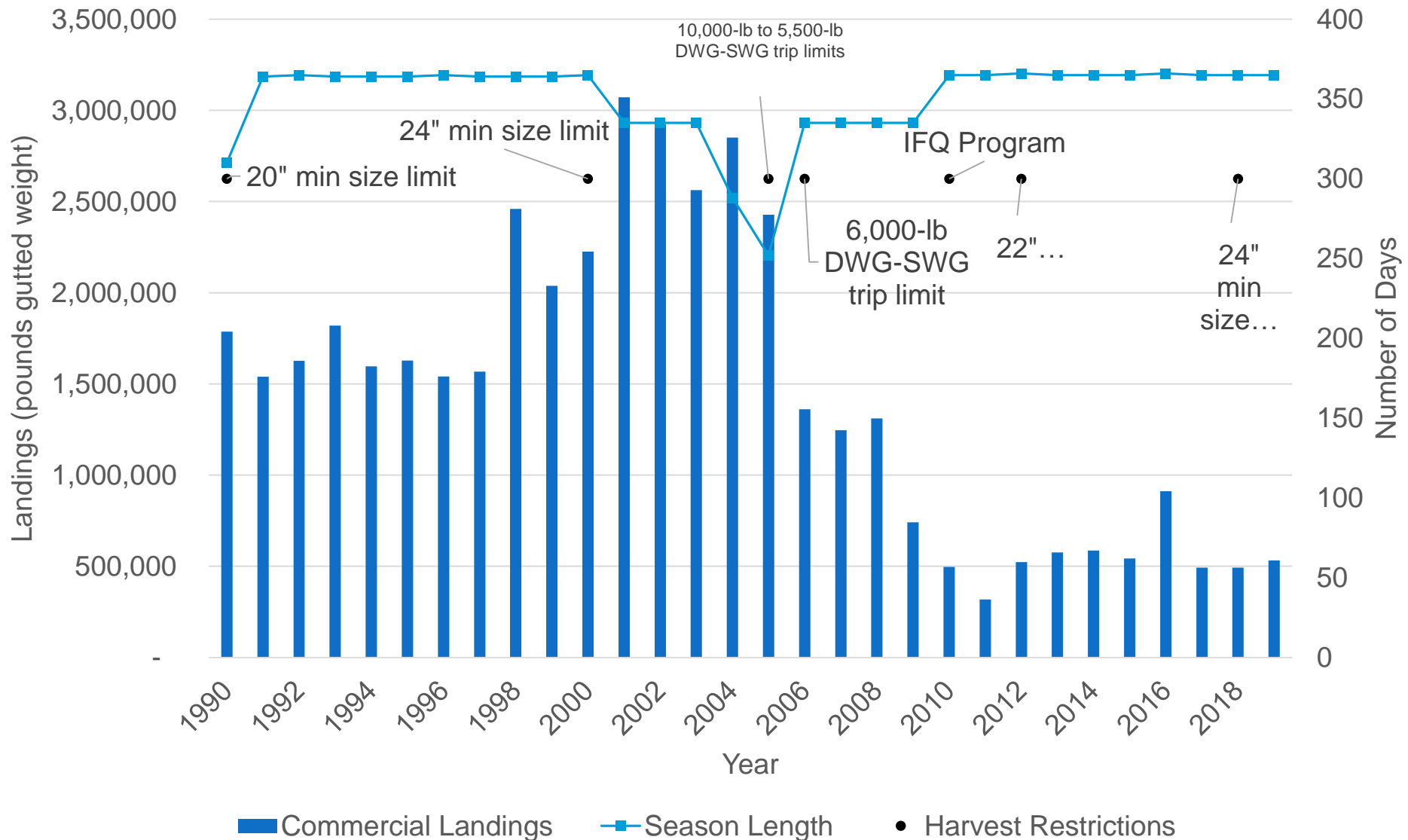


# Background

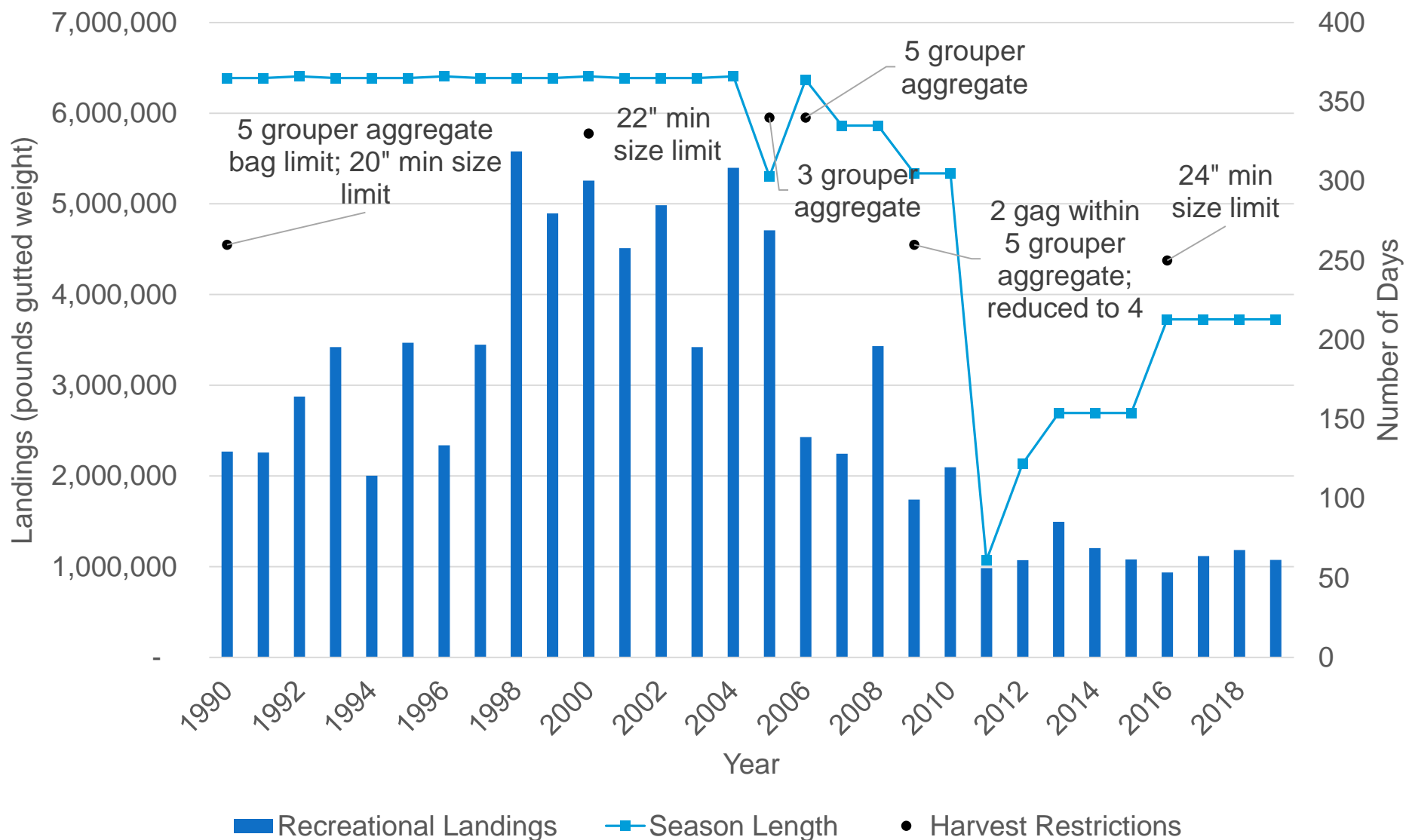
- SEDAR 72 found Gulf gag grouper to be overfished and undergoing overfishing
  - Only about 2% of SSB is male
  - Sectors not landing their ACLs
- SERO finalizing interim rule to reduce fishing mortality (F)
- Council working on RF Amendment 56, which will create gag rebuilding plan



# Background: Commercial Landings and Management Measures since 1990



# Background: Recreational Landings and Management Measures since 1990



# Action 1: Data Currency Primer

- Data used in Alternatives 2 and 3 in Action 1 use Florida's State Reef Fish Survey (SRFS) for private vessel catch and effort
- Shore mode and charter mode use MRIP-FES
- Headboat mode uses Southeast Region Headboat Survey
- SRFS historic effort estimates are greater than MRIP-CHTS, but much lower than MRIP-FES
- Cannot compare Alternative 1 to Alternatives 2 and 3 due use of different data currencies in SEDAR 72



# Action 1: Reference Points Primer

- $F_{Max}$  used in past assessments; like fishing at wide open throttle. Not recommended by SSC.
- SSC recommended  $F_{30\%SPR}$  for FES run of SEDAR 72, due to estimates of red tide vulnerability and stock reproductive ability
- SSC recommended  $F_{40\%SPR}$  for SRFS run, again due to red tide, and lower estimated productivity under SRFS vs. FES
- $F_{40\%SPR}$  would build the stock to a more resilient biomass level to sustain future red tide events
  - 2021 red tide severity = "medium" compared to 2005





# Action 1: Modification of Gulf Gag Catch Limits Sector Allocation, and Rebuilding Timeline

- **Alternative 1:** No Action. Retain the current catch limits and sector allocation for gag. The current catch limits are set and monitored in MRIP-CHTS, using  $F_{MAX}$ . The sector allocation is 61% recreational, 39% commercial (Amendment 30B). These catch limits in pounds (lb) gutted weight (gw) are as follows:

OFL	4,180,000
ABC	3,120,000
Stock ACL	3,120,000
Commercial ACL (39% of Stock ACL)	1,217,000
Commercial ACT	939,000
Recreational ACL (61% of Stock ACL)	1,903,000
Recreational ACT	1,708,000

**Note: Alternative 1 is not BSIA, and not viable**



# Action 1: Modification of Gulf Gag Catch Limits Sector Allocation, and Rebuilding Timeline

- **Interim Rule:** Revises the current catch limits based on MRIP-FES for the recreational sector landings, using  $F_{30\%SPR}$ . The sector allocation is 61% recreational, 39% commercial (Amendment 30B). These catch limits in lb gw are as follows:

OFL	4,180,000
ABC	3,120,000
Stock ACL	661,901
Commercial ACL (39% of Stock ACL)	258,142
Commercial ACT	199,157
Recreational ACL (61% of Stock ACL)	403,759
Recreational ACT	362,374 (Based on 89.75% ACL)

**Note: This will be the new Alternative 1 in Action 1 once implemented**



# Action 1: Modification of Gulf Gag Catch Limits Sector Allocation, and Rebuilding Timeline

- **Alternative 2:** Revise gag catch limits. The OFL, ABC, ACLs, and ACTs will use  $F_{40\%SPR}$ . ABC = total of ACLs. The sector allocation is 61% recreational, 39% commercial. The catch limits will be set using, and monitored in, SRFS units for recreational private angling landings, FES for other recreational landings. Establish a rebuilding timeline for gag. The catch limits in lb gw are rounded to the nearest thousand pounds, and are as follows for each rebuilding timeline option:
  - Option 2a:  $T_{Min}$  @  $F=0$  (11 years)
  - Option 2b: 75% of  $F_{40\%SPR}$  (18 years)
  - Option 2c:  $T_{Min}$  plus 1 gen (19 years)
  - Option 2d:  $T_{Min} * 2$  (22 years)



# Alternative 2: $F_{40\%SPR}$ , 61% rec, 39% comm

Option 2a:  $T_{Min}$  @  $F=0$  (11 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.60	0	0	0	0	0
2025	0.82	0	0	0	0	0
2026	1.01	0	0	0	0	0
2027	1.22	0	0	0	0	0
2028	1.48	0	0	0	0	0

Option 2b: 75% of  $F_{40\%SPR}$  (18 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.60	0.45	0.293	0.263	0.158	0.132
2025	0.82	0.63	0.410	0.369	0.221	0.185
2026	1.01	0.78	0.507	0.456	0.273	0.229
2027	1.22	0.96	0.624	0.562	0.336	0.282
2028	1.48	1.18	0.767	0.690	0.413	0.347

# Alternative 2: $F_{40\%SPR}$ , 61% rec, 39% comm

Option 2c:  $T_{Min} + 1$  generation time (19 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.60	0.50	0.325	0.293	0.175	0.147
2025	0.82	0.68	0.442	0.398	0.238	0.200
2026	1.01	0.85	0.553	0.497	0.298	0.250
2027	1.22	1.04	0.676	0.608	0.364	0.306
2028	1.48	1.27	0.826	0.743	0.445	0.373

Option 2d:  $T_{Min} * 2$  (22 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.60	0.55	0.358	0.322	0.193	0.162
2025	0.82	0.75	0.488	0.439	0.263	0.221
2026	1.01	0.93	0.605	0.544	0.326	0.273
2027	1.22	1.13	0.735	0.661	0.396	0.332
2028	1.48	1.37	0.891	0.801	0.480	0.403

# Action 1: Modification of Gulf Gag Catch Limits Sector Allocation, and Rebuilding Timeline

- **Alternative 3:** Revise gag catch limits. The OFL, ABC, ACLs, and ACTs will use the MSY proxy of  $F_{40\%SPR}$ . ABC = total of ACLs. The sector allocation is 65% recreational, 35% commercial, using the SRFS-calibrated average landings from 1986 – 2005. The catch limits will be set using, and monitored in, SRFS units for recreational private angling landings, FES for other recreational landings. Establish a rebuilding timeline for gag. The catch limits in lb gw are rounded to the nearest thousand pounds, and are as follows for each rebuilding timeline option:
  - Option 3a:  $T_{Min}$  @  $F=0$  (11 years)
  - Option 3b: 75% of  $F_{40\%SPR}$  (18 years)
  - Option 3c:  $T_{Min}$  plus 1 gen (19 years)
  - Option 3d:  $T_{Min} * 2$  (22 years)



# Alternative 3: $F_{40\%SPR}$ , 65% rec, 35% comm

Option 3a:  $T_{Min}$  @  $F=0$  (11 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.591	0	0	0	0	0
2025	0.805	0	0	0	0	0
2026	0.991	0	0	0	0	0
2027	1.200	0	0	0	0	0
2028	1.454	0	0	0	0	0

Option 3b: 75% of  $F_{40\%SPR}$  (18 years)

$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.591	0.444	0.288	0.260	0.155	0.130
2025	0.805	0.615	0.400	0.360	0.215	0.181
2026	0.991	0.769	0.500	0.450	0.269	0.226
2027	1.200	0.943	0.613	0.552	0.330	0.277
2028	1.454	1.156	0.751	0.676	0.405	0.340



# Alternative 3: $F_{40\%SPR}$ , 65% rec, 35% comm

Option 3c:  $T_{Min} + 1$  generation time (19 years)

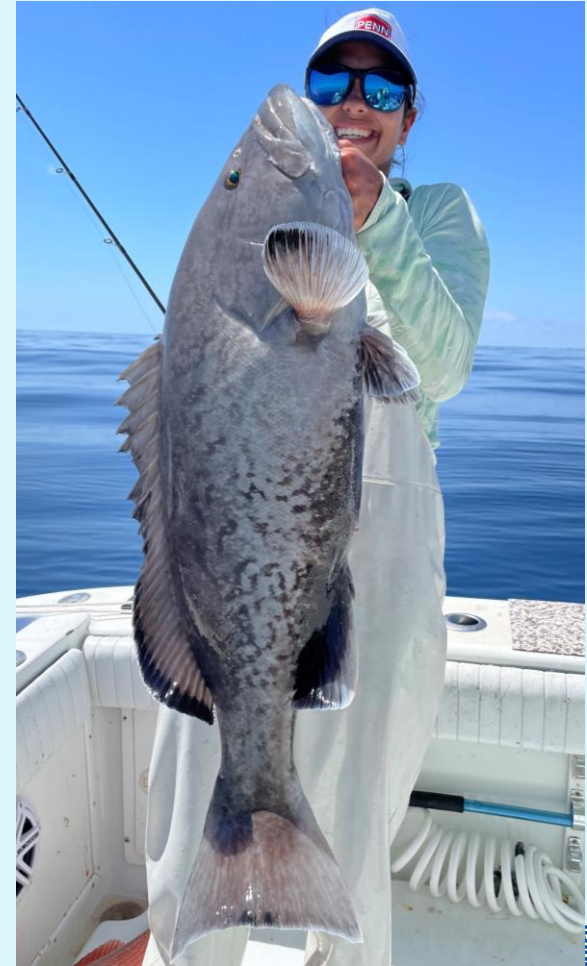
$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.591	0.489	0.318	0.286	0.171	0.144
2025	0.805	0.674	0.438	0.394	0.236	0.198
2026	0.991	0.838	0.545	0.490	0.293	0.246
2027	1.200	1.024	0.666	0.599	0.359	0.301
2028	1.454	1.251	0.813	0.732	0.438	0.368

Option 3d:  $T_{Min} * 2$  (22 years)

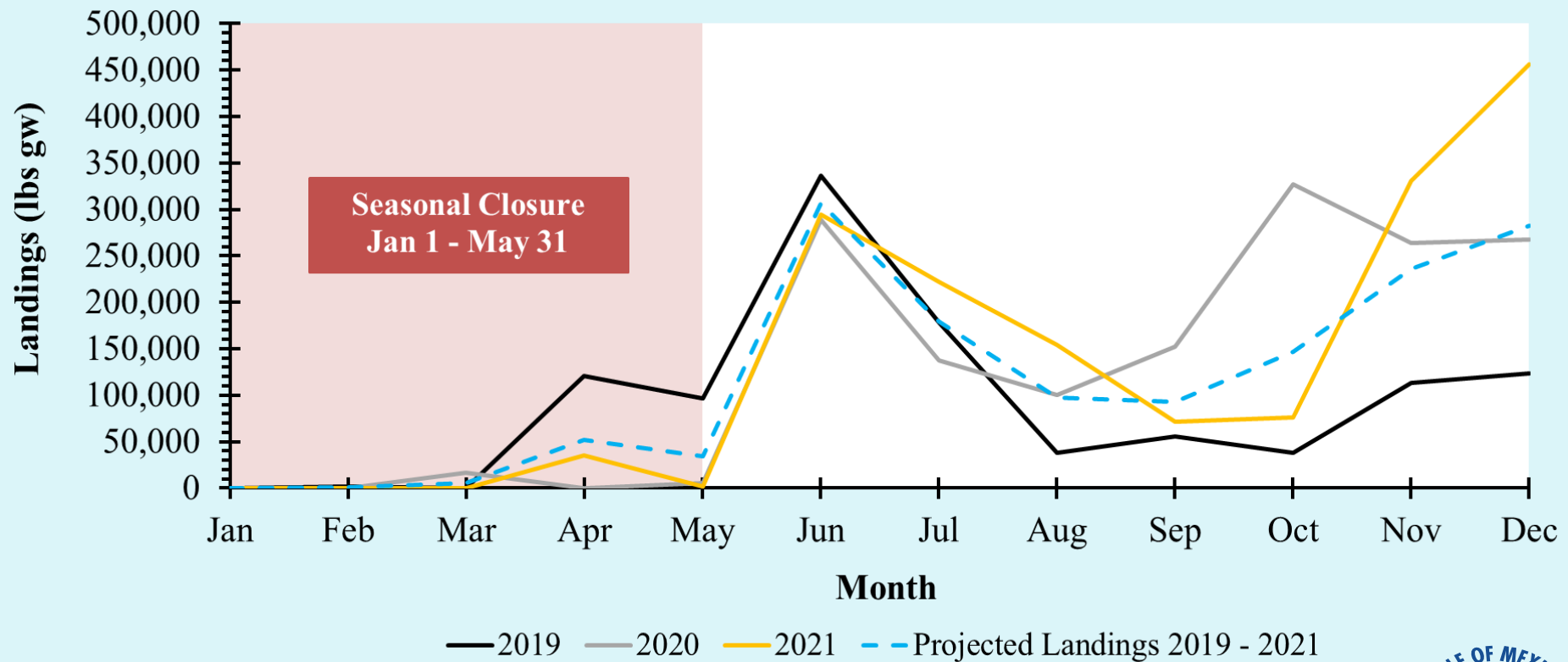
$F = F_{40\%SPR}$	OFL	ABC	Rec ACL	Rec ACT	Com ACL	Com ACT
Year	mp gw	mp gw	mp gw	mp gw	mp gw	mp gw
2024	0.591	0.537	0.349	0.314	0.188	0.158
2025	0.805	0.736	0.479	0.431	0.258	0.217
2026	0.991	0.911	0.592	0.533	0.319	0.268
2027	1.200	1.109	0.721	0.649	0.388	0.326
2028	1.454	1.349	0.877	0.789	0.472	0.397

## Action 2: Modification of Gulf Gag Recreational Fishing Season Start Date

- **Alternative 1:** No Action. Open rec fishing season on June 1. NMFS closes harvest when the ACL is projected to be met.
- **Alternative 2:** Open rec fishing season on September 1. NMFS closes harvest when the ACL is projected to be met.
- **Alternative 3:** Open rec fishing season on October 1. NMFS closes harvest when the ACL is projected to be met.
- **Alternative 4:** Open rec fishing season on November 1. NMFS closes harvest when the ACL is projected to be met.



# Action 2: Modification of Gulf Gag Recreational Fishing Season Start Date



## Action 2: Modification of Gulf Gag Recreational Fishing Season Start Date

- Used estimated monthly landings for 2019 – 2021
  - SRFS for private vessels
  - FES for shore, charter
  - Southeast Region Headboat Survey for headboat
- Monthly landings divided by # days / month to provide a daily catch rate to project expected closure dates
  - Treats weekdays and weekends equally



# Action 2: Modification of Gulf Gag Recreational Fishing Season Start Date

Action 1, Alternative 2: 39% commercial   61% recreational					
Action 1 Alternatives	Rec ACT (lb gw)	Action 2, Alt 1 June 1	Action 2, Alt 2 Sept 1	Action 2, Alt 3 Oct 1	Action 2, Alt 4 Nov 1
Alt 2b: 18y	263,000	<b>20-Jul</b> (50 days)	<b>6-Nov</b> (67 days)	<b>20-Nov</b> (51 days)	<b>10-Dec</b> (41 days)
Alt 2c: 19y	293,000	<b>27-Jul</b> (57 days)	<b>11-Nov</b> (72 days)	<b>24-Nov</b> (55 days)	<b>14-Dec</b> (45 days)
Alt 2d: 22y	322,000	<b>7-Aug</b> (68 days)	<b>15-Nov</b> (76 days)	<b>29-Nov</b> (60 days)	<b>18-Dec</b> (49 days)





# Action 2: Modification of Gulf Gag Recreational Fishing Season Start Date

Action 1, Alternative 3: 35% commercial   65% recreational					
Action 1 Alternatives	Rec ACT (lb gw)	Action 2, Alt 1 June 1	Action 2, Alt 2 Sept 1	Action 2, Alt 3 Oct 1	Action 2, Alt 4 Nov 1
Alt 3b: 18y	260,000	<b>19-Jul</b> (49 days)	<b>6-Nov</b> (67 days)	<b>19-Nov</b> (50 days)	<b>9-Dec</b> (40 days)
Alt 3c: 19y	286,000	<b>26-Jul</b> (56 days)	<b>10-Nov</b> (71 days)	<b>23-Nov</b> (54 days)	<b>13-Dec</b> (44 days)
Alt 3d: 22y	314,000	<b>2-Aug</b> (63 days)	<b>14-Nov</b> (75 days)	<b>28-Nov</b> (59 days)	<b>17-Dec</b> (48 days)



# Potential Actions for Future Document

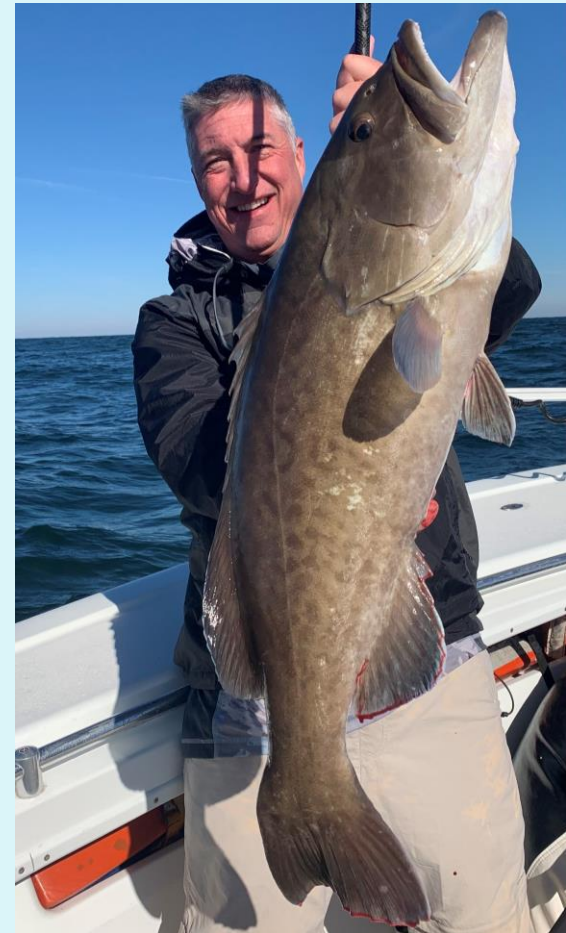
October 2022 Motion: To direct staff to develop the following options for exploration in Amendment 56:

- Summer recreational gag fishing season
- Lowering the gag bag limit
- Establishing a gag vessel limit
- Commercial spawning season closure
- Spatial areas to protect spawning gag
- Commercial bycatch trip limits



# October 2022 Council Meeting

- Summer recreational gag fishing season:
  - Included in Alternative 1 of Action 2
  - IPT does not recommend split season
    - Season duration for June 1 start expected to be two months or less
    - Splitting between June start and fall start may create derby, volatility in season duration projections
- Revise the gag recreational bag limit:
  - Follow-up Framework Action
- Create a gag recreational vessel limit:
  - Follow-up Framework Action



# October 2022 Council Meeting

- Commercial spawning season closure:
  - Gag closure does not stop all fishing
  - Comm discards expected during closure
    - Comm discards from deeper waters
    - Expected higher mortality despite cooler water
- Spatial areas to protect spawning gag:
  - Further analysis needed; follow-up document
- Commercial bycatch trip limits:
  - Further analysis needed; follow-up document





# Questions?

